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UNIVERSITY OF ALBERTA

A MULTIPLE RATIONALITIES MODEL OF TRANSFORMATIONAL CHANGE: UNDERSTANDING THE UBIQUITY OF CHANGE

BY

BRUNO DYCK ©

A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF DOCTOR OF PHILOSOPHY
IN
ORGANIZATIONAL ANALYSIS

FACULTY OF BUSINESS
EDMONTON, ALBERTA
FALL 1991

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Date: June 27, 1991

DEDICATION

This work is dedicated to my wife Heather, whose support and encouragement was instrumental for its completion. It is also dedicated to our families and our parents, and particularly to my father, for their interest and support. Special thanks to my advisor and mentor, Bob Hinings, my other committee members and professors, and to the persons who took time to complete questionnaires and interviews.

ABSTRACT

This study introduces new language and concepts to help describe and understand processes underlying transformational change attempts. Its unique approach, comparing the dynamics associated with dismissed transformational change attempts to those associated with implemented transformations, highlights the ubiquity of change and challenges the traditional understanding that convergence is characterized by complacence and passivity. The Weberian language of multiple rationalities enables transformational processes to be classified in more precise conceptual terms, and reveals the role of different rationalities for the implementation and dismissal of transformational change attempts. Results suggest that transformational change attempts are more likely to be implemented if supported primarily by value-based reasons, and minimally by self-interests. Findings also suggest that increased crisis intensity is positively related to number of transformational change attempts made and to resistance to transformation. Finally, the study suggests that heightened opportunity levels are associated with increased openness to transformation, and that capacity acts as a necessary but insufficient requirement for transformation.

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List of abbreviations found in the text

ACR	alternative cultural rationality (a cultural rationality inconsistent with an organization's existing formal rationality) (also FnR CR)
AFR	alternative formal rationality (a formal rationality inconsistent with an organization's existing formal rationality) (also theoretical capacity)
AFPCR	alternate formal, political, and cultural rationality (formal, political and cultural rationalities inconsistent with an existing means-ends configuration) (also FnR PCR)
AMBS	Associated Mennonite Biblical Seminaries (the official seminary of CMC, Indiana)
APR	alternative political rationality (a political rationality inconsistent with an organization's existing formal rationality) (also FnR PR)
CMBC	Canadian Mennonite Bible College (official post-secondary educational institution of CMC)
CMC	Conference of Mennonites in Canada (parent organization of CMBC)
CR	culturally rational (consistent with value postulates)
CnR	culturally nonrational (inconsistent with value postulates)
FR	formally rational (consistent with existing means-ends configuration)
FCR	formally and politically rational (consistent with existing means-ends configuration and with value postulates)
FPCR	formally, politically and culturally rational (consistent with existing means-ends configuration, self-interests, and value postulates)
FPR	formally and politically rational (consistent with existing means-ends configuration and with self-interests)
FnR	formally nonrational (inconsistent with existing means-ends configuration)
MBBC	Mennonite Brethren Bible College (a CMBC-like college operated by CMCs sister conference)

PR	politically rational (consistent with self-interests)
PnR	politically nonrational (inconsistent with self-interests)
PSE	post-secondary education (used to describe institutions of higher education with entrance requirements that students have earned a high school diploma)
TR	theoretically rational (rational non-behavior)
UM	University of Manitoba

CHAPTER 1

INTRODUCTION

Change is ubiquitous in organizations. Some changes seem unnoteworthy, being little more than mundane elaborations of previous activity. Other changes are significant, transforming organizational activities. Understanding the dynamics of these latter transformational changes may represent *the* challenge facing contemporary organizational analysts (Greenwood and Hinings, 1987).

The study of transformational change is important for at least two reasons. First, it provides an excellent window for understanding organizational processes, such as political and cultural dimensions of organizational life, which are becoming increasingly important and interesting for organizational analysts to study (Greenwood and Hinings, 1987; Mintzberg and Waters, 1985; Pettigrew, 1985b). For example, although studies of organizational culture and values which underlie behavior in organizations have a long history in organizational analysis (e.g., Blau, 1955; Gouldner, 1954; Selznick, 1949), this area of study gained a new impetus in the early 1970s (e.g., Clark, 1972) and burgeoned in the early 1980s (Ouchi and Wilkins, 1985; Fine 1984). Similarly, studies of the political dimensions of behavior in organization have become increasingly prominent in the past decade (Pfeffer, 1981).

Second, the realities of the empirical world are demanding that practitioners make transformational changes with increasing frequency. Factors such as technological obsolescence, global competition, and mergers and acquisitions have resulted in transformational changes becoming evermore common (Kimberly and Quinn, 1984). Improved theoretical understanding, particularly of the behavioral process side of transformation, is needed to help practitioners manage transformational changes (Greenwood and Hinings, 1987; Kimberly and Quinn, 1984; Mintzberg and Waters, 1985).

The present study looks at why some organizational transformational change attempts are implemented and while other attempts are dismissed. The emphasis on dismissed transformational change attempts, unique to the present research, permits the study of dynamics largely neglected in previous transformational change literature. Two key premises are implicit in the orientation adopted here. First, organizational members face many transformational change attempts other than those which are implemented. Second, periods of non-transformation (i.e., periods of convergence) are not characterized by passive complacence and dormant inertia, but rather by active resistance to transformational change attempts.

In Chapter 2 a model of transformational change is developed which features a Weberian multiple rationalities framework and incorporates findings from the growing body of research which emphasizes that the dynamics of transformation need to be studied in the context of dynamics of convergence (especially Tushman and Romanelli, 1985; also Child and Smith, 1987; Gersick, 1991; Hinings and Greenwood, 1988; Pettigrew, 1985a, 1987; Tichy and Ulrich, 1984). The framework permits researchers to investigate "Rational according to what type?" alongside "Rational for whom?". The model, presented in Figure 2.1, also identifies triggering and enabling conditions thought to be associated with transformation. Hypotheses based on the multiple rationalities model of transformational change are presented which look at why some attempts to implement transformational change are implemented and while others are dismissed.

Chapters 3 through 5 describe the research design employed to test the hypotheses and the utility of the model. Chapter 3 introduces the chosen research site, and describes the numerous methods used to gather data, including reading archival documents (approximately 13,750 pages), interviews (54), questionnaires (165), and observation. Chapter 4 describes how the eleven transformational change attempts analyzed in this study were found. This involved a three step process. First, periods of convergence were identified for the forty-plus year history of the focal organization. Second, implemented transformational change attempts were identified which took place between periods of convergence. Third, dismissed transformational change attempts were identified. Chapter 5 describes how the rationalities and triggering and enabling conditions associated with each of the eleven transformational change attempts were operationalized and measured.

In Chapter 6 the hypotheses are individually tested. The analysis demonstrates that the multiple rationalities model seems especially useful in describing the processes underlying transformational change attempts. The findings suggest that transformational changes are more likely to be implemented: i) the more they are supported primarily by value-based reasons; ii) the less they are in the self-interests of their initiators; and iii) the more capacity members have to implement them. Furthermore, transformational change attempts are more likely to be considered during periods of crisis and are more likely to be embraced by organizational members when opportunities are apparent. Finally, more-encompassing transformational changes attempts are resisted more than less-encompassing attempts.

Chapter 7 discusses some of the implications of the research. A punctuated equilibrium multiple rationalities model of transformational change, based on this study, is developed and presented. The punctuated equilibrium perspective (e.g., Gersick, 1991, Tushman and Romanelli, 1985) suggests that organizations are typically in a state of equilibrium characterized by convergent change, and that

that transformational changes punctuate this equilibrium by replacing existing means-ends configurations with new ones. The findings presented in this study indicate that periods of convergence are not as passive as commonly understood. It seems that organizations are always facing transformational change attempts; transformational change attempts pervade organizations' histories. Transformational changes are relatively rare organizational phenomena not due to organizational members' dormancy, but much more because of their intense activity to maintain the status quo in the face of continual transformational change attempts. Furthermore, transformational changes are relatively rare events in organizational life not due to a lack of attempts; they are rare due to the lack of co-alignment among the critical factors which enable transformation.

CHAPTER 2

A MULTIPLE RATIONALITIES MODEL OF TRANSFORMATIONAL CHANGE

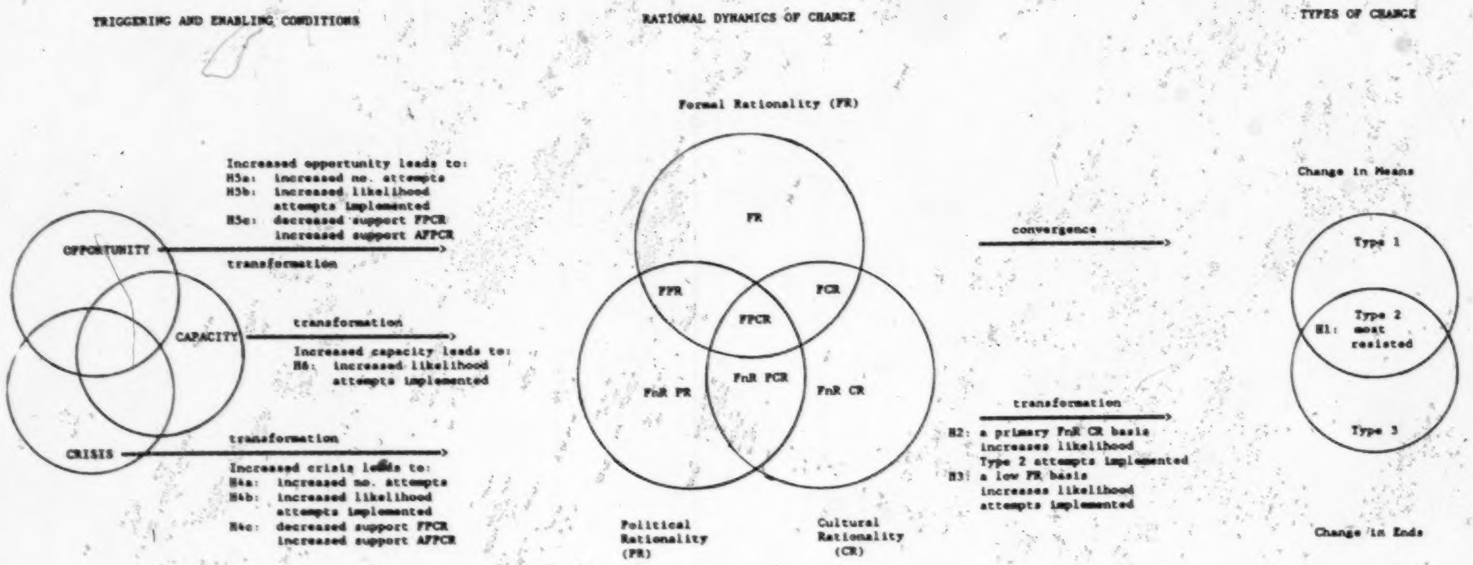
2.0 Overview

The literature review presented in this chapter provides the basis to develop a multiple rationalities model of transformational change as well as a series of propositions about why some transformational change attempts are dismissed while others are implemented.

The first three parts of the chapter serve to develop the model shown in Figure 2.1. In the first part of the chapter, transformational change is defined as non-convergent change to a particular means-ends configuration dominating an organization. Three types of transformational change attempts are possible: i) attempts to change means only (Type 1); ii) attempts to change both means and ends (Type 2); and iii) attempts to change ends only (Type 3). These three types are depicted by the two overlapping circles on the right-hand side of Figure 2.1. It is expected that Type 2 changes are the most difficult to implement (Hypothesis 1).

The second part of the chapter discusses the multiple rationalities framework, represented by the three overlapping circles at the center of Figure 2.1. The framework is premised on the Weberian argument that all behavior in organizations is rational according to one or more of three types of rationality: i) formally rational

Figure 2.1
A Multiple Rationalities Model of Transformational Change


TRIGGERING AND ENABLING CONDITIONS
OPPORTUNITY
CAPACITY
CRISIS
transformation
Increased opportunity leads to:
H5a: increased no. attempts
H5b: increased likelihood attempts implemented
H5c: decreased support FPCR increased support AFPCR
transformation
Increased capacity leads to:
H6: increased likelihood attempts implemented
transformation
Increased crisis leads to:
H4a: increased no. attempts
H4b: increased likelihood attempts implemented
H4c: decreased support FPCR increased support AFPCR
RATIONAL DYNAMICS OF CHANGE
Formal Rationality (FR)
FR
FPR
FCR
FPCR
FnR PR
FnR PCR
FnR CR
Political Rationality (PR)
Cultural Rationality (CR)
convergence
transformation
H2: a primary FnR CR basis increases likelihood Type 2 attempts implemented
H3: a low FR basis increases likelihood attempts implemented
TYPES OF CHANGE
Change in Means
Type 1
Type 2
H1: most resisted
Type 3
Change in Ends

behavior fine-tunes an organization's existing means-ends

configuration; ii) politically rational behavior is in the self-interests of organizational members, and; iii) culturally rational behavior is consistent with values held by organizational members.

The area contained within the top circle of the framework (i.e., formal rationality) depicts why it is rational for organizational members to support convergent changes (and thus resist transformation). Convergent change may be: consistent with an organization's existing means-ends configuration (FR); consistent with an organization's existing means-ends configuration as well as with members' self-interests (FPR); consistent with an organization's existing means-ends configuration as well as with members' values (FCR), or; consistent with an organization's existing means-ends configuration, members' self-interests, and members' values (FPCR).

Obversely, the area outside of the top circle depicts why it might be rational for organizational members to support transformational changes (and thus resist convergence). Transformational change may be: consistent with members' self-interests but inconsistent with an organization's existing means-ends configuration (FnR PR); consistent with members' values but inconsistent with an organization's existing means-ends configuration (FnR CR), or; consistent with members' self-interests and values but inconsistent with an organization's existing means-ends configuration (FnR PCR).

It is expected that transformational change attempts will be more likely to be implemented if based primarily on culturally rational reasons (Hypothesis 2), and if not based on politically rational reasons (Hypothesis 3).

The third part of the chapter looks at three triggering and enabling conditions associated with transformational change (left-hand side of Figure 2.1). Transformational change is expected to increase with: i) crisis intensity (Hypothesis 4); ii) opportunity level (Hypothesis 5); and iii) capacity of organizational members to implement transformational change (Hypothesis 6).

Finally, there is a brief summary and the key contributions to organization theory are highlighted.

2.1 Specification of terms: transformational change, convergence, and change attempts

This section draws from extant literature to develop: a) a conceptual understanding of transformational change, b) the notion of periods of convergence versus periods of transformation, and c) a simple typology of transformational change attempts.

A. Transformational change

A first step in the study of transformational change is to specify what the term "transformational change" refers to. Change is ubiquitous in organizations; the student of transformational change must be able to differentiate changes which are transformational from those which are not. Table 2.1 lists commonly used criteria to identify transformational change.

Table 2.1
Commonly used criteria for identifying transformational change

i) the significance of a given change,
ii) the lack of routineness of a given change,
iii) the amount of conflict potential associated with a given change,
iv) the consequentiality of a given change,
v) the level of emotional involvement of organizational members making a given change, and
vi) the level of complexity of a given change.

(source: adapted from Kimberly and Quinn, 1984:1; Pennings, 1985:6)

Criteria such as those listed in Table 2.1 can be problematic for at least two reasons. First, they fail to identify the object of change. That is, they fail to specify precisely what must change "significantly" in order for a transformational change to have taken place. Are a re-focussing of the mission statement, an introduction of a new product, an entrance into a new market, a high degree of turnover on the board of directors, and an increase in degree of formalization of an organization's structure all transformational changes?

Second, these criteria fail to specify precisely when a given change is transformational. That is, how is a researcher to decide if a given change is "complex" or "consequential" enough to be considered a transformational change? Where does one draw the line between a high versus a low degree of interest group involvement? Are there situations where a particular change would be transformational and other situations where that same change would not be transformational?

Criteria such as those listed in Table 2.1 are, on their own, too ambiguous to be of much help to a serious student of transformational change. At best, these criteria become useful when understood in a larger context where problems of the "what" and the "when" of change are considered. Fortunately, recent developments in the change literature have helped to address these problems.

The "what" of change. The literature lacks a consistent definition as to what must change in order for transformational change to be said to have taken place. A typology by Kimberly and Quinn (1984:5) perhaps comes closest to capturing the variety of understandings found in the literature on the object of transformational change. They suggest that transformational change can take three forms: repositioning (i.e., "major changes in how an organization defines its relationship to the various markets it serves"), restructuring (i.e., "major changes in how an organization defines its basic components and their interrelationships"), and revitalizing (i.e., "major changes in how an organization defines its style of operations").

Because of its comprehensiveness, an adaptation of Kimberly and Quinn's (1984) typology is used here to identify the object of transformational change. In simplest terms, an organization's ends and its means for achieving those ends constitute the object of transformational change. Specifically, transformational changes occur in an organization's domain (i.e., its ends), and/or its structures and systems (i.e., its means).

A change in the domain of an organization is analogous to Kimberly and Quinn's notion of repositioning. A change in domain refers to change in purpose, goals or mission. It includes changes in product lines and target markets. An organization's domain identifies the niche which an organization occupies within its larger environment.

A change in the structure of an organization is similar to what Kimberly and Quinn (1984) refer to as restructuring, and also includes part of what they refer to as revitalizing. A change in structure may include changes in centralization (e.g., the distribution of authority), formalization (e.g., number of written rules and procedures), and specialization (e.g., division of labor). Structure includes span of control, number of levels in the hierarchy, and departmental groupings.

A change in the systems of an organization is somewhat related to what Kimberly and Quinn (1984) refer to as revitalizing. A change in systems includes changes in appraisal systems, planning systems, and control systems.

Organizations have vertical communication systems and horizontal coordination systems.

The "when" of change. Not every change in an organization's domain, structure and systems is a transformational change. In order to be able to identify when a given change is transformational, a researcher must understand its conceptual complement, convergent change.

There are two basic types of change in organizations (Hinings and Greenwood, 1988; Kimberly and Quinn, 1984; Miller and Friesen, 1984; Tushman and Romanelli, 1985; Van de Ven and Poole, 1987). On the one hand, change can be convergent, incremental, evolutionary, or routine; on the other hand, change can be transformational, reorientational, revolutionary, or strategic. While the various labels used to describe these two types of change may suggest subtle differences regarding the speed, magnitude, or intentionality of change, for the purposes of the present discussion the descriptors convergent change and transformational change are adequate.

The ability to differentiate between these two basic change types is premised on a holistic view that an organization's domain, structure and systems are theoretically and empirically interdependent and interrelated, even though they are conceptually and analytically independent. Put differently, an organization's domain, structures and systems "fit" together according to some underlying logic or rationality. The merit in adopting such a holistic orientation pervades the work of many key organization theorists. For example, Chandler (1962) showed that strategy and structure were related; Miles and Snow (1978) created a four-part typology relating strategy, technology and structure; Miller and Friesen (1977) derived holistic typologies from an empirical taxonomy of organizations; population ecologists (e.g., Hannan and Freeman, 1977) argue that the environment selects out certain organizational "forms"; and Mintzberg (1983) has presented a useful holistic organizational typology with which to describe and classify organizations. Recent research in transformational change (most notably Hinings and Greenwood, 1988, and their notion of organizational archetypes) has demonstrated the merit in adopting a holistic orientation for studying the dynamics of organizational change.

Weber's (see Kalberg, 1980) notion of formal rationality will be used here to give expression to the "fit" between an organization's domain, structure and systems. Formal rationality refers to means-ends efficiency maximization based on universal rules, laws, or regulations which are applied without any regard for individuals' self-interests or values. Formal rationality identifies "the most precise and efficient means for the resolution of problems by ordering them under universal and abstract regulations" (Kalberg, 1980:1158). As used here, formal rationality refers to an underlying efficient alignment between and cohesion among an organization's "ends" (e.g., its domain, goals, purpose) and its "means" (e.g., its structures and systems). Formally rational (FR) behavior is consistent with and elaborates an organization's existing way of fitting together its ends and means. Formally nonrational (FnR) behavior displaces an organization's established way of doing things. This understanding of formal rationality is central to differentiating transformational changes from convergent changes.

Definition

1. An organization's formal rationality is manifest in the underlying efficient alignment between and cohesion among its domain, structure and systems.

Convergent changes are the more common of the two types of change. Convergent changes improve the efficiency and precision of the means by which organizations' ends are met. They serve to fine-tune an organization's existing structures and systems; they represent an elaboration of an organization's formal rationality. Convergent changes result in an improved alignment among and coherence between domain, structures and systems within an organization. FR changes are convergent changes, and convergent changes are FR (cf. Hinings and Greenwood (1988) on inertia; Pettigrew's

(1985a) notion of continuity; Tushman and Romanelli (1985) on equilibrium).

Transformational changes, in contrast, introduce a qualitatively different alignment among and coherence between an organization's domain, structures and systems. They represent discontinuities in an organization's activities. Transformational changes reform the form and formal rationality of an organization. FnR changes are transformational changes, and transformational changes are FnR. Thus, understanding an organization's formal rationality enables researchers to identify when a transformational change or change attempt has taken place (cf. Child and Smith, 1987; Hinings and Greenwood, 1988; Kimberly and Quinn, 1984; Pettigrew, 1985a, 1987; Tushman and Romanelli, 1985).

This formal rationality-based understanding of transformational change richly supplements the criteria listed in Table 2.1. For example, not all changes that seem to be "significant" are transformational, and not all transformational changes may appear to be "significant". For example, the organization to be described in Chapter 3 completed a major capital expansion project in the 1950s--it relocated from make-shift facilities to a physical plant designed to meet its specific needs. Despite the significant costs involved, this was a convergent change because it represented a fine-tuning of the organization's ends and means. However, when the same organization implemented a relatively small pilot project in the late 1970s, it was a transformational change because it represented a qualitative change in its domain.

Definitions

2. A convergent change has taken place when an organization's pre-change formal rationality has been elaborated.

3. A transformational change has taken place when an organization's pre-change formal rationality has been displaced.

B. Periods of transformation and convergence

A transformational change is not synonymous with a period of transformation. Similarly, a convergent change is different from a period of convergence. A period of convergence refers to a time span when a given organization is dominated by a particular formal rationality. That is, an organization can be characterized as having a particular alignment among and cohesion between its domain, structures and systems. Periods of convergence are characterized by their continuity and adaptive changes which elaborate an organization's structures, systems and domain (Tushman and Romanelli, 1985; cf. Gersick, 1991).

It is important to note that convergence does not imply inaction. During periods of convergence organizational members may need to actively resist numerous attempts to change their organization's FR means-ends configuration. For example, Hinings and Greenwood (1988) describe the great effort required by Wool City organization members to maintain convergence.

Periods of transformation are usually relatively short time spans during which an organization's pre-change formal rationality is replaced by an alternate qualitatively different formal rationality. In theory, a period of transformation may be synonymous with a lone transformational change, if that change singularly serves to replace an organization's formal rationality with a new formal rationality. In practice, periods of transformation encompass numerous transformational changes as an organization's previous formal rationality is dismantled and replaced by a new formal rationality. Every period of transformation marks the end of a previous period of convergence and the beginning of a new period of convergence. In this way, periods of transformation can be seen to punctuate the equilibrium characterizing organizations during periods of convergence (Gersick, 1991; Tushman and Romanelli, 1985) and as they move from one archetype to the next (Hinings and Greenwood, 1988; Miller and Friesen, 1984).

Definitions

4. A period of convergence refers to a (usually relatively long) time span during which a given formal rationality dominates within an organization and transformational change attempts are dismissed.

5. A period of transformation refers to a (usually relatively short) time span during which transformational changes are made which result in the implementation of an alternative formal rationality.

C. Types of transformational change attempts

The discussion thus far provides a conceptual and theoretical basis which permits the specification of different subtypes of transformational change. Different typologies of change can be identified depending on the nature of the research question to be addressed. For example, Hinings and Greenwood (1988) have developed a relatively elaborate typology of different types of change.

A relatively simple 3x2 typology will be used here (see Table 2.2 on next page) to classify transformational change attempts. The first dimension (the x-axis of the table), indicates that attempts to make transformational changes can be either implemented or dismissed. Put differently, attempts to institute FnR changes can result in either transformation (i.e., the attempt is implemented) or in convergence (i.e., the attempt is dismissed). Dismissed attempts at transformational change are suppressed challenges to an organization's formal rationality; these attempts are discussed but not implemented. For the purposes of the analysis made here, dismissed transformational change attempts may be deliberate (i.e., the proponents consciously recognize that a new order is being envisaged) or inadvertent (i.e., proponents do not realize the ramifications of their proposal).

Table 2.2
A typology of transformational change attempts

	implemented attempt at transformational change	dismissed attempt at transformational change
change in "means" only	TYPE 1 (I)	TYPE 1 (D)
change in "means" and "ends"	TYPE 2 (I)	TYPE 2 (D)
change in "ends" only	TYPE 3 (I)	TYPE 3 (D)

Wood (1985) provides an example of an inadvertent transformational change attempt which was dismissed. She describes how a new president at Cummings College unknowingly attempted to change an existing means-ends configuration by usurping power from faculty members (e.g., by overruling faculty advisory committees). Thus, despite the fact that Cummings had enjoyed excellent fundraising and enrollment during the new president's first term of office (5 years), a faculty-initiated movement was afoot to have him dismissed. When the president was told how his behavior threatened the organization's traditional formal rationality, his response was accommodating.

Implemented attempts at transformational change, or simply transformational changes, lead to the introduction of a new formal rationality in an organization. Implemented transformational changes suppress an organization's pre-change formal rationality and introduce a qualitatively new set of FR means-ends calculations to an organization. As in dismissed attempts at transformational change, implemented transformational change attempts can be either deliberate or inadvertent.

Definitions

6. Dismissed attempts at transformational change are those change attempts which (deliberately or inadvertently) challenge an organization's existing formal rationality but are suppressed.

7. Implemented attempts at transformational change are those change attempts which (deliberately or inadvertently) suppress an organization's existing formal rationality and usher in a new formal rationality.

Adopting this implemented/dismissed typological dimension, which is unique to the present study, provides the key for permitting the study of processual dynamics of transformational change which have been neglected in previous research. Specifically, looking at implemented as well as dismissed change attempts enables the researcher to compare patterns associated with each. A central focus of this study is to identify the processes and prerequisites associated with transformation.

Along the second dimension (the y-axis of Table 2.2), attempts can be made to transformationally change an organization's: i) means, ii) means and ends, or iii) ends. According to Kimberly and Quinn (1984), these three types can be expected to vary according to their difficulty and prevalence. First, the most common and least complex type of transformational change attempt alters the means (structures and systems) but not the ends (domain) of an organization's FR means-ends configuration. For example, Quinn and Anderson (1984), describe how a relatively young, growing and innovative organization in the American Midwest formalized its activities. This type of change attempt encompasses Kimberly and Quinn's (1984) type I (restructuring) and type III (restructuring and revitalizing) changes.

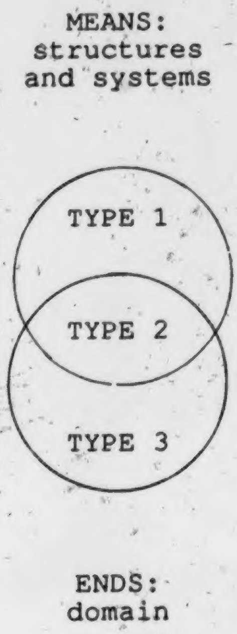
A less common and more complex type of transformational change alters both ends and means, as happens when an organization enters a new market and creates new structures and systems to serve that market. For example, in the mid 1980s new world markets were opened and management was restructured at Burrough's Corporation (Tichy and Devanna, 1990). This type of change attempt is analogous to Kimberly and Quinn's type II (restructuring and repositioning) and type IV (restructuring and revitalizing and repositioning) changes.

A third type of transformational change attempt alters the ends to be attained by an organization but not the means for attaining them. This may happen when an organization attempts to formally change its domain without making changes to its structures and systems. For example, a national organization may gain international incorporation but not pursue international sales, nor implement structures and systems to do so. The difficulty in finding empirical examples describing this type of change suggests that it may occur infrequently; it is not even included in Kimberly and Quinn's (1984) typology.

Figure 2.2 (see next page) shows how change attempts in an organization's ends and/or means can be transformational, and that there are three distinct types of transformation.

Underlying Kimberly and Quinn's (1984) implication that Type 2 transformations will be less frequent than the other types is the proposition that Type 2 changes will be more difficult to implement than Type 1 or Type 3 changes. Type 2 changes may be the most difficult to implement, that is, organizational members' opposition to Type 2 change attempts

Figure 2.2
Constituents and types of transformational change



may be greater than their opposition to the other types, because their scope is larger than Type 1 or Type 3 changes. For example, because organizational members have more to lose in Type 2 changes than in the other two types, resistance to Type 2 changes will be the greatest. This leads to the following hypothesis.

Hypothesis

1. Attempts to transformationally change both an organization's ends as well as its means (i.e., Type 2

changes) will face greater resistance from organizational members than attempts to change means only (i.e., Type 1 changes) or ends only (i.e., Type 3 changes).

2.2 Transformational change processes

The discussion in this section develops a framework based on Weber's multiple rationalities to review extant literature and identify key factors important for understanding the processes of transformational change.

A. Multiple rationalities

Defining transformational change in terms of formal rationality requires, in order to understand why some attempts at transformation are dismissed while others are implemented, the study of the relationship between rational and nonrational elements of behavior in organizations. This rational-nonrational tension, which Etzioni (1961; emphasis added) identified as "_the_ central problem of organizational analysis", has pervaded the field of organizational analysis since the time of Max Weber (Dyck 1989; Ouchi and Wilkins, 1985; cf. Pfeffer, 1981). Unfortunately, like other ambiguous dichotomies in the organizational literature (e.g., formal versus informal behavior) (Scott, 1981), and although it is well recognized that understanding the relationship between rational and nonrational behavior in organizations is a central concern in organizational analysis, theorists generally lack well-developed concepts for engaging in this study (cf. Jones, 1990).

In order to help clarify what is rational and nonrational behavior in organizations, it is useful to return to Weber (1946, 1958, 1968), whose notion of formal rationality continues to serve as the basis for most organizational analysts' understanding of rational behavior in organizations (Pugh, Hickson and Hinings, 1985). For Weber, no behavior is nonrational; if a given action is formally nonrational, then it must be rational according to at least one of his three other rationality types (practical rationality, substantive rationality, and theoretical rationality). Via this radical perspectivism, a Weberian orientation serves to explode the rational-nonrational dichotomy.

The multiple rationalities framework described here (first introduced in Dyck, 1989) incorporates all four of Weber's rationality types; this is something previous organizational analysts have neglected to do. The discussion of the four rationality types presented here draws heavily from and adapts Kalberg's (1980) excellent survey of Weber's use of the term "rationality".

It is important to begin by noting that, for Weber, individual action is the fundamental atom in all societal processes. "Even collective concepts are understood by Weber to be specifiable common action orientations of individuals in groups" (Kalberg, 1980:1149). Weber's three remaining types of rationality (his notion of formal rationality has already been introduced in section 2.1) will be presented in the following order: practical, substantive, and theoretical.

Practical rationality refers to means-ends rational calculations based on individuals' purely pragmatic and egoistic self-interests. A practically rational way of life accepts given realities and calculates the most expedient means of attaining desired self-interested ends. Practical rationality distrusts all impractical values.

In order to reflect contemporary terminology, the term "political" rationality will be used here to refer to Weber's notion of "practical" rationality. Politically rational (PR) behavior is consistent with one's self-interests; politically nonrational (PnR) behavior displaces one's self-interests. The objective definition of interests chosen here follows that of Hinings and Greenwood (1988:27) for whom "interests refer to the relationship between an individual or group and the distribution of organizational resources". Interests are associated with the particular distribution of organizational material and social resources.

Substantive rationality refers to the selection, measurement, and judgement of "reality's flow of unending empirical events" based on past, present or future value postulates (Kalberg, 1980:1155). Value postulates are "entire clusters of values that vary in comprehensiveness, internal consistency, and content" (Kalberg, 1980: 1155). In short, behavior which is consistent with a set of values is said to be substantively rational. All organizations are

> "ordered in terms of specifiable value postulates, even though these may not be readily identifiable by their participants and can be so fundamentally foreign to the values of the social researcher that he [sic] can scarcely imagine situations in which they acquire validity." (Kalberg, 1980:1155)

In contemporary literature, the term "culture" is often used to identify the substantive rationality within an organization. Therefore, the term cultural rationality will be used here in place of Weber's term substantive rationality. Culturally rational (CR) behavior is consistent with a specific value or set of values. Culturally nonrational (CnR) behavior displaces specific values.

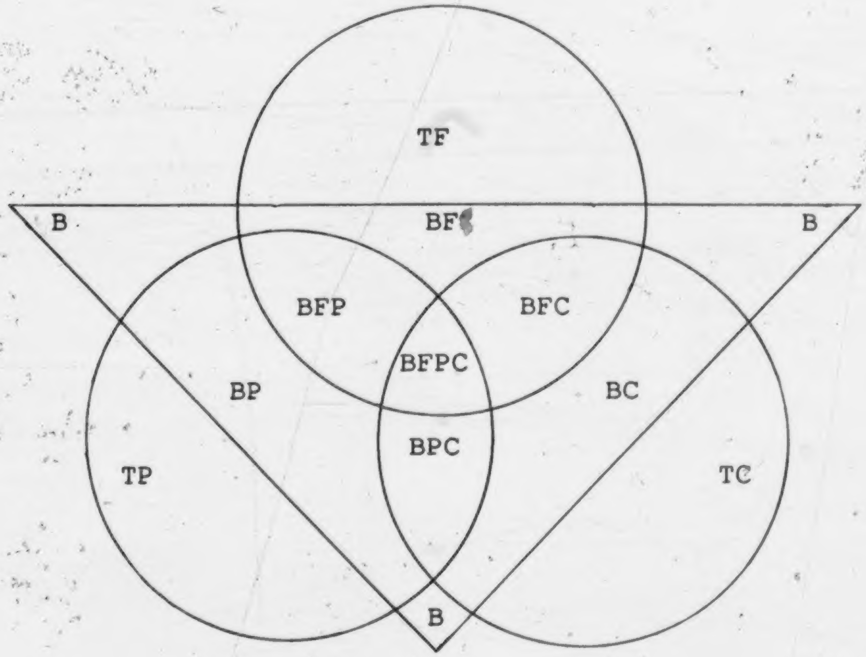
Theoretical rationality refers to the "conscious mastery of reality through the construction of increasingly precise abstract concepts rather than through action" (Kalberg, 1980:1152). The foundation of theoretical rationality is individuals' innate need to provide coherence to life's events. Unlike the other three types of rationality, theoretical rationality does not necessarily directly order action into patterns (e.g., knowing that 2+2=4 does not necessarily order one's actions). Two specific restricted applications of theoretical rationality will be introduced here. First, theoretical rationality will be used to designate non-behavior (note: the term non-behavior, as used here, refers to actions which in theory could have taken place but in actuality did not) which is rational according to one of the other three rationality types. For example, if FR rules are not adhered to (e.g., employees take extended lunch breaks), the rules are said to be TFR (i.e., theoretically formally rational).

Second, the term *alternative rationality* will be used to describe specific possible variations of the other types of rationality. For example, behavior that is FnR according to an organization's existing formal rationality may be rational according to an alternative formal rationality (AFR). Thus, although it may be FnR for members in a mechanistically structured organization to have flexible working hours, it may be rational according to a specific AFR organic structure. Similarly, behavior that is CnR according to an existing FR set of value postulates can be CR according to an ACR (alternative cultural rationality). For example, the value placed on profits is different in capitalist versus socialist societies. The utility of the notion of alternative rationality will become more apparent in discussing organizational members' "capacity" to undergo transformational change (section 2.3).

A framework for organizational analysis. A theoretical framework applicable for understanding organizational behavior generally and the dynamics of transformational change specifically is shown in Figure 2.3. The framework recognizes that an organization's formal rationality cannot be apolitical nor acultural (Pettigrew, 1985). The formal rationality underlying behavior in organizations, which lies at the heart of the subject matter for organizational analysts, cannot be fully understood without recognizing the implications of overlap and non-overlap with political rationality and cultural rationality.

In order to include Weber's fourth type of rationality in the present discussion, the multiple rationalities framework presented in Figure 2.3 (see next page) is somewhat more elaborate than the framework shown in the central portion of Figure 2.1. Figure 2.3 depicts three overlapping circles which intersect each of the three sides of a triangle. The area within the triangle represents and encaptures all of the actual behavior of organization members, and the area outside the triangle represents non-behavior (i.e., actions which in theory could have taken place but in actuality did not). The areas within each of the three circles represent actions that are rational according to one of the first three rationality types. The area within the top circle represents FR behavior, the area within the lower left-hand circle represents PR behavior, and the area within the lower right-hand circle represents CR behavior. The areas within the circle which lie outside the triangle of action represent TR non-behavior.

Figure 2.3
A multiple rationalities framework



B = actual Behavior
F = Formal rationality
P = Political rationality
C = Cultural rationality
T = Theoretical rationality

According to Weber, identical behavior by individuals may be rational according to different types of rationality. For example, some persons may punctually arrive to and depart from their work places because of their cultural rationality (e.g., they want to put in an honest day's work), whereas for others the identical behavior may be nothing more than following the rules of formal rationality, while yet others may perform the same behavior because of their political rationality (e.g., they want to impress the manager and get a pay raise) (Kalberg, 1980). Gouldner's (1954) description of a representative bureaucracy illustrates how a given FR means-ends configuration can be PR and CR for different reasons for both managers and subordinates.

Extending this argument, it is possible to see how identical behavior may be based on different rationalities across time. For example, as Weber (1958) argued, at first capitalism as an economic order had been legitimated by Puritans' cultural rationality. However, long after the departure of religious ascetism, capitalistic societies have remained captured in its "iron cage" (cf. DiMaggio and Powell, 1983).

Figure 2.3 also depicts various combinations of overlap between the four types of rationality and the triangle of action. The utility of these categories, and the dynamic interplay between them, is demonstrable by applying the framework to classical organizational studies (Dyck, 1989). For example, Selznick (1949) argues that the cultural rationality dominating an organization may i) serve as a surrogate for FR structures and systems (Selznick, 1949:50) and ii) be devised and relied upon by organizational members to "cover and defend" real PR relationships (Selznick, 1949:147). Gouldner (1954) shows how an organization's formal rationality can be based on members' PR considerations (punishment-centered bureaucracy), and also shows that CR reasons (e.g. getting "the real job" done) can suppress FR rules (mock bureaucracy). Finally, Merton (1961:55 and 56; first published in 1957) argues that an organization's formal rationality may serve to create groups of members who share the same PR "entrenched interests" which, in time, may serve as the basis to suppress FR rules. Similarly, an organization's formal rationality may become associated with complementary CR values. This latter point is echoed in Selznick's (1957:17 emphasis in the original) notion of institutionalization, which means to "to infuse with value beyond the technical requirements of the task at hand". These three exemplars demonstrate not only the relationships between the three rationality types, but also how these relationships are influenced temporally.

/Note that Figure 2.3 identifies areas of action which lie outside all types of rationality (i.e., areas labelled "B"). This implies that the rationality describing some actual organizational behavior may, for a time, remain undiscovered by researchers.

Finally, and important for the present study, note that Weber believes that cultural rationality is the most pervasive of all the types of rationality. He argues that only cultural rationality is capable of permanently suppressing PR regularities of action and fully subduing formal rationalization processes. Indeed, according to Weber, "*action motivated by values* and resistant to and counterpoised against environmental molding by interests has been of the greatest historical consequence" (Kalberg, 1980:1170; emphasis in the original). If this correct, then CR behavior which displaces political and formal rationalities is of the greatest historical consequence.

Descriptions of how cultural rationality can suppress political rationality can be found in the literature. For example, in one of the most oft-cited studies of organizational culture, Clark (1970, 1972) argues that faculty members' commitment to their college's organizational saga (in which cultural rationality played a central role) led to behavior which "took food from the mouths of faculty children" (Clark, 1970:254). However, the study of how culture can *suppress* political and formal rationalities has evolved into the study of how culture can *supplement* the political rationality of organization's managers (Fine, 1984; Ouchi and Wilkins, 1985). The need for more research on FnR PnR CR behavior has been discussed at greater length elsewhere (Dyck, 1989).

Two hypotheses can be drawn from Weber's proposition. The first looks at whether organizational changes of the greatest consequence indeed are based on FnR CR reasons. For the present study, transformations which change both parts of an organization's means-ends configuration (i.e., Type 2 changes) are considered to be of greatest consequence. It is hypothesized that Type 2 change attempts which are primarily based on ACR reasons (versus AFR or APR reasons) are more likely to be implemented than attempts which lack a primary emphasis on ACR reasons. Put differently, only ACR reasons are able to suppress existing rationalities.

Hypothesis

2. Transformational change attempts of the greatest historical consequence (i.e., Type 2 changes) which are primarily supported by formally nonrational culturally rational (i.e., alternative cultural rationality (ACR)) based reasons are more likely to be implemented than attempts which are not.

Because hypothesis 2 posits that formal rationality is NOT the primary basis upon which transformational change attempts are dismissed or implemented, it seems somewhat counter-intuitive. Common sense may suggest that, because transformation should occur when a more precise and efficient way of resolving organizational problems is available, formal rationality should provide the primary basis upon which transformational change attempts are dismissed or implemented. The role of formal rationality in implementing transformational change attempts is taken up later in Hypothesis 6.

An additional hypothesis which may be drawn from Weber is also somewhat counter-intuitive. It proposes that implemented transformational change attempts are NOT primarily based on PR reasons. As will be discussed later, previous research suggests that self-interested behavior is more efficacious in resisting that in supporting transformational change attempts. Because change attempts primarily based on their initiators' self-interests are likely to be against the self-interests of other stakeholders, these attempts are likely to be strongly resisted and eventually dismissed. Put differently, minimizing FR PnR resistance to transformational change attempts is more likely to lead to implementation than maximizing the FnR PR support of transformational change attempts.

Along these lines, it is hypothesized that transformational change attempts are more likely to be implemented if they are less in the self-interests of their initiators than of other stakeholders. This is because stakeholders who suppress their own self-interests in order to implement transformational change are in effect lessening the resistance to transformation. Also, if change initiators are supporting changes which are not in their own self-interests, perhaps those changes will be in the self-interests of other stakeholders who in turn will support them for FnR PR reasons.

Hypothesis

3. Transformational change attempts are more likely to be implemented the less they are based on politically rational reasons, and when they are less in the self-interests of change-initiators than of other stakeholders.

B. The dynamics of change

The utility of the multiple rationalities framework introduced above becomes apparent when reviewing and organizing the existing literature on organizational change. This discussion will proceed in two parts. The first part will focus on how the model helps to understand processes leading to convergence and dismissed attempts at transformation. The second part will highlight how the model helps to understand processes leading to transformation.

Reasons for convergence and dismissed transformational change attempts. Note that, for the purposes of the present research, reasons transformational change attempts are dismissed are also reasons for convergence. However, not all convergent changes need simultaneously be dismissed transformational change attempts. Three reasons for convergence are repeatedly identified in the change literature. These will be presented in terms of categories identified in the framework in Figure 2.3.

i) formally rational (FR) behavior

The first reason for convergence, sometimes referred to as an organization's technical capacity (e.g., Child and Smith, 1987; Hinings and Greenwood, 1988; Tichy and Ulrich, 1984) is analogous to an organization's existing formal rationality. When an organization's members have developed a capacity to perform certain actions, then they tend to repeat those actions and to fine-tune them (e.g., Starbuck, 1983, 1985). Furthermore, because they tend to be designed to identify opportunities for convergent change, FR internal controls and external monitoring systems may hamper the ability to recognize opportunities and the need for transformational changes (cf. Janis, 1985). Finally, the skills of an organization's top managers may be transactional and be biased towards and adept at making efficiency-increasing convergent changes (Burns, 1978; Tushman and Romanelli, 1985).

The organizational failure literature is replete with examples of organizations whose members are so committed to a particular formal rationality that they are blind to opportunities and crises. Decreased performance and failure result when organizational members do not have the capacity required for anything but convergent change (Dyck, 1990). For example, Armos, a small California-based biotechnical organization specializing in developing animal vaccines, failed because its founders were so committed to their in-house developed plans that they were blind to the kinds of research projects most likely to attract needed investments (Fox, 1982). Similarly, among the problems which contributed to the demise of E. F. Hutton, certainly a key one was the inability of its members (and especially of Robert Fomon) to make the changes necessary to adapt to changing regulations governing the industry (Kutik, 1988; Lorinc, 1990).

ii) formally rational politically rational (FPR) behavior

A second reason for convergence repeatedly identified in the literature is comparable to FPR behavior. This is often discussed under the label of "power" and/or "politics" in the literature (e.g., Child and Smith, 1987; Hinings and Greenwood, 1988; Kimberly and Rottman, 1987; Pettigrew, 1987; Tichy and Devanna, 1990; Tichy and Ulrich, 1984). No formal rationality is apolitical; every combination of hierarchical structures and information systems creates and serves dominant groups who have vested interests to perpetuate them (e.g., Benson, 1977; Jones, 1990; Pfeffer and Salancik, 1978; Walsh, Hinings, Greenwood and Ranson, 1981). Thus, for some organizational members, convergence is PR.

Definition

8. Formally rational politically rational (FPR) behavior is based on those pragmatic self-interests of organizational members which are consistent with an organization's existing formal rationality.

The self-interests of organizational members often support behavior preventing changes to an existing formal rationality. For example, a transformational change attempt at Westinghouse in the early 1980s was resisted because it threatened members' future career opportunities (Tichy and Devanna, 1990; also recall Merton's, 1961, observation that formal rationality creates interest groups). Change in ownership at Armos was resisted because it threatened founders' control of the organization, despite the fact that such a change could have helped Armos avoid collapse (Fox, 1982). A change attempted to formalize appraisal systems at E. F. Hutton was resisted by top management, again for PR reasons (Kutik, 1988). Finally, the dispersed power structure at Chrysler in 1978 meant that each of Chrysler's thirty-five vice presidents had PR reasons for retaining the status quo (Hinings and Greenwood, 1988).

Note that not all discussions of power are simultaneously discussions of political rationality. Indeed, certain organizational members may have power precisely because of refusing to behave according to their self-interests (although in some, but not all, situations it could be argued that it is in their self-interests to do so). For example, Hammond (1984) describes a situation where faculty members in a private college may actually have gained power to make decisions regarding academic programs because of their willingness to work at a low salary. This example underlines the need for a holistic approach, lest the researcher fail to see the forest (actual decision making power) for the trees (salary levels as a surrogate measure of power).

iii) formally rational culturally rational (FCR) behavior

Just as an organization's formal rationality cannot be apolitical, so also its formal rationality cannot be acultural. This is reflected in a third reason for convergence repeatedly identified in the literature: inherited tradition or culture (e.g., Child and Smith, 1987; Tichy and Ulrich, 1984). An organization's goals, structures and systems can be expected to be associated with, and based upon, certain values (see especially Hinings and Greenwood's, 1988, discussion of interpretive schemes; cf. Bartunek, 1984). FCR behavior is based on value postulates consistent with an organization's formal rationality.

Recall that the underlying rationalities for specific behaviors in an organization can change over time. For example, it is possible that FR behavior can over time become associated with certain values and become CR. In such a case the behavior can be said to have become "institutionalized", that is, infused with value beyond the formally rational requirements of the task at hand (paraphrasing Selznick, 1957). Institutionalized behavior can be difficult to change, even after the initial underlying formal rationality which bore it has been removed (see Zucker, 1977). Indeed, according to Meyer (1982), cultural rationality can act as an internal gyroscope which substitutes for formal structures.

Definition

9. Formally rational culturally rational (FCR) behavior is based on value postulates consistent with an organization's existing formal rationality.

Several examples illustrate how organizational members resist transformational change attempts based on FCR reasons. First, Sales and Mirvis (1984) identify culture as the dominant force in an organization's efforts to retain convergence against the wishes of a newly-acquiring parent organization. Second, Child and Smith (1987) describe how transformational change attempts at Cadbury's were resisted because, among other reasons, they threatened "Cadburyism", an ideology reflecting a Quaker social conscience and community spirit which management regarded as being good for business efficiency. Third, Hackman (1984:56) suggests that

People's Express was able to forestall a formalization transformation because organizational members' commitment to the existing FR cultural rationality (i.e., People's vision and commitment to develop its members) somehow compensated for the absence of the kinds of structures and systems introduced in many other organizations soon after the entrepreneurial stage. Finally, Tichy and Devanna (1990) describe that it was difficult to introduce retail banking to Chase Manhattan Bank because of its existing culture associated with being a corporate lending bank.

In sum, the empirical literature shows that achieving transformational change is a difficult process precisely because of the FR, FPR, and FCR reasons for convergence identified above. Thus, Pettigrew (1985a:291), in his case study of ICI, stresses "the enormous difficulties" of breaking down "dominant rationalities once a particular marriage of strategic content, context, and process has become established." Further, he sees this breaking down "as a long-term conditioning process." Child and Smith (1987:583), in their case study of change at Cadbury's, also found that "it took decades rather than years" for the transformation process to be achieved. They suggest that this is partly because the process of transformation "transcends many levels and both cognitive and political linkages between the levels must be active if the process is not to stall." Finally, the study by Hinings and Greenwood

(1988) also contains numerous examples of the difficulties organizations have in moving from one archetype to another.

Reasons for transformation. Given Peter Drucker's stipulation that change must appear rational to organizational members (Bryant, 1979), the above-listed rational reasons for convergence must somehow be offset by other rational reasons for transformation. Two rationality-based reasons promoting transformational change attempts are repeatedly identified in the literature.

i) formally nonrational politically rational (FnR PR) behavior

The present research follows previous studies in recognizing that politics and power are important for understanding transformation, just as they were important for understanding convergence (Child and Smith, 1987; Hinings and Greenwood, 1988; Pettigrew, 1985). However, unlike many previous studies, the conceptual framework developed here is able to analytically distinguish political reasons for convergence (FPR behavior) from political reasons for transformation (FnR PR behavior).

FnR PR reasons are based on organizational members' pragmatic self-interests which are inconsistent with their organization's existing fit between domain, structures and systems. As opposed to FPR interests, which elaborate or perpetuate an organization's existing distribution of material and social advantage, FnR PR interests oppose and fundamentally challenge the distribution of organizational resources.

Definition

10. Formally nonrational politically rational (FnR PR) behavior is based on organizational members' (whether individually or in groups) pragmatic self-interests which are inconsistent with their organization's existing formal rationality.

For example, Pfeffer and Salancik (1978) describe how transformations which are FnR for organizations (e.g., takeovers which do not increase organization profitability) may take place primarily because they are in the self-interests of CEOs (e.g., career advancement). Crozier (1964) describes an organization where maintenance staff acted in their self-interests and maximized their power by thwarting FR efforts to formalize their jobs (maintenance staff would take home manuals of the machines they serviced in order to ensure that they alone could troubleshoot).

ii) formally nonrational culturally rational (FnR CR) behavior

The second reason for transformation repeatedly found in the literature, FnR CR behavior, corresponds to what others have discussed as culture or inherited tradition (e.g., Child and Smith, 1987; Hinings and Greenwood, 1988;

Pettigrew, 1985; Tichy and Ulrich, 1984). Note again that, unlike many previous studies, the present study analytically distinguishes value-based reasons for convergence from value-based reasons for transformation; the former are FCR and the latter FnR CR. FnR CR behavior is based on value postulates which are inconsistent with an organization's existing formal rationality.

Weber argues that every lifesphere (i.e., every realm of life) has at least one identifiable standpoint rooted in a value postulate (Kalberg, 1980:1156). Yet, insofar as lifespheres are separate from one another, it is conceivable that the value postulates associated with two lifespheres of an individual may be mutually exclusive. However, value postulates external to an individual's organizational lifesphere can pervade that lifesphere and suppress FR behavior. Recalling the discussion leading to hypothesis 2, according to Weber, only cultural rationality has the analytical potential to pervade and unite all lifespheres into a comprehensive whole, and only cultural rationality is capable of permanently suppressing PR regularities of action and fully subduing formal rationalization processes (Kalberg, 1980:1169).

Definition

11. Formally nonrational cultural rationality (FnR CR) behavior is based on value postulates which are inconsistent with an organization's existing formal rationality.

The effect of glasnost on organizations operating in east bloc countries provides one example of how values can lead to transformational change attempts; North American Christian businesspeople are being invited to the Soviet Union to run workshops to describe organizational implications of embracing an economy which values openness. The effect of the "green revolution" on newsprint manufacturers, Styrofoam producers and product packaging strategies provides another example of how FnR values can create a need for organizations to transform. A final example is the effect the anti-apartheid movement is having on some organizations operating in South Africa, whose traditional FR practices are being penalized.

Note that a given formal rationality can be supported by two differing cultural rationalities. For example, different bureaucratic organizations can share a common formal rationality regardless of whether they are based on capitalist, socialist, or communist value postulates. While it may be true empirically that cultural change is usually (or even always) associated with transformational change, conceptually this need not be the case. On this point the present understanding of transformational change differs from others (e.g., Kimberly and Quinn, 1984; Pettigrew, 1987; Schein, 1985) who argue that a change in culture alone may constitute a transformational change.

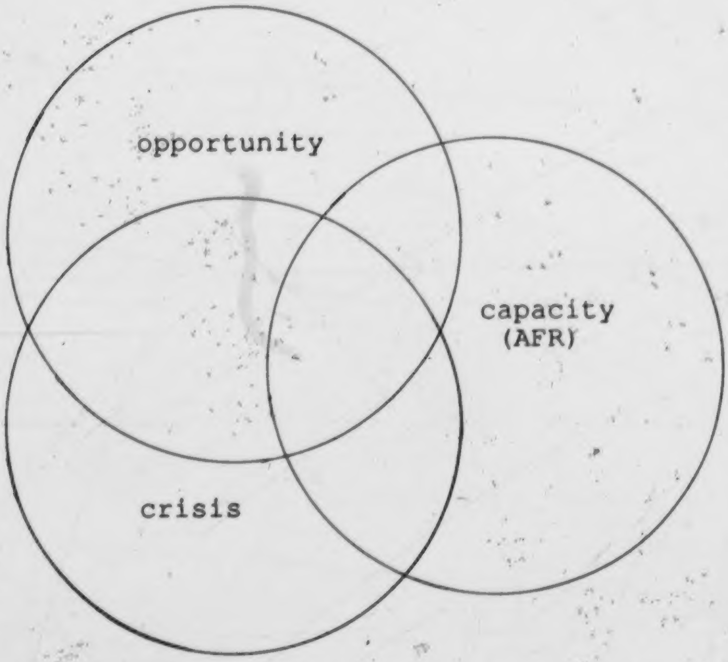
Finally, note that the tension between FR and FnR behavior helps to explain why conflict often lies at the nexus of transformational versus convergent change. That is, given the fact that an existing formal rationality tends to serve the interests and be consistent with the value postulates of at least one group of organizational members, any effort to implement a transformational change may draw opposition and conflict from the group whose interests and values are threatened by the change. This is not to suggest that all transformational change necessarily implies conflict, nor that all conflict implies transformational change. Rather, it suggests that a FnR behavior is expected to be associated with conflict. Such an expectation is consistent with those who argue that organizations should be viewed as coalitions of members supporting their own interests and values (e.g., Pfeffer and Salancik, 1978).

2.3 Contextual conditions affecting organizational change

The literature repeatedly identifies two sets of contextual conditions important for understanding the dynamics of transformational change: triggering and enabling conditions. Specifically, triggering conditions are usually related to unsatisfactory organizational performance, and enabling conditions may refer to the opportunity and capacity necessary for transformation to take place. These two are discussed depicted in Figure 2.4 (see next page).

Figure 2.4
Contextual conditions effecting transformation

TRIGGERING AND ENABLING CONDITIONS



A. Triggering conditions

Much of the change literature describes transformational changes as being triggered by performance-based crises. Performance-based crises refer to those conditions which, if left unchanged, make organizational termination inevitable (adapted from Dyck, 1990). Crisis intensity is directly related to failure's end result; the more intense the crisis, the sooner termination is expected. Organizational performance standards may be partly defined by the ends of an organization, partly interpreted by its dominant elite, and partly set individually by its members. Over time, organizational members come to share certain performance standards.

Researchers must exert greater care when identifying the role of performance-based crises as triggering change. On the one hand, not all performance-based crises trigger transformation. For example, if members of an organization fail to perceive an actual crisis (e.g., due to groupthink, Janis, 1985), then the organization may terminate without a transformational change being triggered (recall the examples of Armos and E. F. Hutton). Even when crises are perceived, organizational members may choose to defuse them by attributing poor performance to a one time event. Such a response may be especially likely in organizations where an existing formal rationality has a long history of successful performance (Tushman and Romanelli, 1985).

On the other hand, not all transformational changes are triggered by performance-based crises. For example, it is conceivable that members of an organization can enact a crisis when none objectively exists. Consider the example Pettigrew (1985) cites where top managers at ICI enacted a crisis by manipulating the financial reports to show a loss in order to help facilitate transformation. In this case, transformation could be seen to be triggered more by top management's manipulation of the financial statements than by a performance-based crisis as traditionally defined. Furthermore, Clark (1970, 1972) describes a situation where a particular college was "ready" for change, despite the fact that it was not facing performance-based crises. In his case, transformation could be seen to be triggered by the hiring of a new President with a vision for a new formal rationality.

Finally, it is often overlooked that performance-based conditions need not be "negative" to trigger transformation. Along with performance-based crises, transformational changes can also be triggered by performance-based bonanzas, which take place when an organization's performance far-exceeds its standards. For example, when organizations are perceived as "cash cows", managers may diversify into high-risk ventures or purchase less-profitable organizations in order to avoid being taken over (e.g., Maytag buying Hoover). Bonanzas may provide opportunities for organizations to transform.

In sum, performance-based conditions are important for understanding transformation. Sometimes, and perhaps usually, implemented transformational change attempts are triggered by performance-based crises. Other times, implemented transformational change attempts are triggered by performance-based bonanzas. And still other times, performance-based crisis conditions are created in order to enable transformation. Finally, sometimes crises remain unnoticed and/or ignored and therefore do not trigger transformation.

It is hypothesized that increased crisis intensity increases the likelihood of transformation because: i) increased crisis intensity is expected to be associated with an increase in the number of transformational changes being attempted; ii) increased crisis intensity is expected to be associated with an increased likelihood that change attempts are implemented; and iii) increased crisis intensity is expected to be associated with a decrease in an organization's members' support for an existing formal rationality and an increase in support for an alternate formal rationality.

The first part of the hypothesis suggests that crises trigger transformational change attempts. Put differently, because they may help to alleviate crisis, there is an increased likelihood that alternative means-ends configurations will be considered when crisis intensity increases. The second part of the hypothesis suggests that transformational change attempts are more likely to be implemented when crisis intensity increases because the possibility that the changes will help to alleviate the crises contributes to the reasons supporting transformation. The third part of the hypothesis describes the processual mechanism by which intensified crises increases the likelihood of transformation. This part suggests that organizational members' support for an existing formal rationality will decrease the more the latter is associated with crisis, and that members' support for alternative means-ends configuration will increase the more the existing formal rationality is associated with crisis.

Hypothesis

4. Increased crisis intensity increases the likelihood of transformation because:

a) increased crisis intensity is associated with an increase in the number of transformational changes being attempted;

b) increased crisis intensity is associated with an increased likelihood that change attempts are implemented;

c) increased crisis intensity is associated with a decrease in an organization's members' support for an existing formal rationality and an increase in support for an alternate formal rationality.

B. Enabling conditions

The notion of enabling conditions, as used here, includes two factors: opportunities and capacity. Opportunities refer to conditions which open the way for organizational members to consider alternative possible means-ends configurations for their organization. The notion of opportunities has at least three distinct components. First, opportunities may arise due to changes in key personnel. This is implicit in the work of those who talk about transformational versus transactional leaders, and how replacing the latter with the former may create an opportunity for transformation (e.g., Burns, 1978; Pettigrew 1987). Second, opportunities may be perceived when performance outstrips expectations, thereby making unexpected resources available for expansion. Slack resources provide a measure of opportunity. Performance bonanzas provide opportunities for transformation. Buffer resources are important for the implementation of transformational change attempts (e.g., Dyck, 1990). Third, opportunities can be created by changes outside an organization's boundaries. Examples include the exit of key competitors and the introduction of new technologies or organization forms enabling better servicing of a niche.

In a sense, organizational members always have the opportunity to implement transformational change; there are always new markets an organization could enter, and there are always clients who would like specific products or services added to an organization's range. However, some opportunities are more inviting than others, offering a greater likelihood of improved performance if properly seized.

Paralleling the discussion on crises, it is hypothesized that the likelihood of transformation will increase along with opportunity level because: i) increased opportunity levels are associated with an increase in the number of transformational changes being attempted; ii) increased opportunity levels are associated with an increased likelihood that change attempts are implemented; iii) increased opportunity levels are associated with a decrease in an organization's members' support for an existing formal rationality and an increase in support for an alternate formal rationality.

The first part of the hypothesis suggests that opportunities trigger transformational change attempts. Because some transformational change attempts are expected to be based on a desire to seize opportunities, the number of attempts made is expected to increase along with the level of opportunities. The second part suggests that, because opportunities will add to the reasons favoring transformational change attempts, implemented transformational change attempts are more likely the higher the opportunity level. The third part of the hypothesis describes the processual mechanism by which heightened opportunity levels increase the likelihood of transformation. This part suggests that organizational members' support for an existing formal rationality will decrease when it does not capitalize on opportunities, and members' support for an alternative means-ends configuration will increase when it is perceived to seize opportunities.

Hypothesis

5. Heightened opportunity levels increase the likelihood of transformation because:

a) heightened opportunity levels are associated with an increase in the number of transformational changes being attempted;

b) heightened opportunity levels are associated with an increased likelihood that change attempts are implemented;

c) heightened opportunity levels are associated with a decrease in an organization's members' support for an existing formal rationality and an increase in support for an alternate formal rationality.

Capacity represents the second category of enabling conditions. Two types of capacity can be specified. First, theoretical capacity refers to having a workable model describing an organization's domain/structure/systems configuration after transformation. If an organization has members who can articulate an alternative formally rational (AFR) way of organizing, then it has the theoretical capacity to implement transformational change. An organization whose members have little theoretical capacity have little idea as to the possible different formal rationalities the organization could adopt. For example, when managers at Cadbury's chocolate recognized the need to undergo transformational change in order to keep up with competition from Mars, they knew that it was possible to use assembly-line technology in their operations, but did not know how. The necessary theoretical capacity to implement assembly-line technology was acquired by hiring "men from Mars" and by talking to Mars' suppliers (Child and Smith, 1987:576).

Technical capacity refers to the "know-how" necessary to get from an organization's existing FR way of organizing to an AFR way of organizing. Even when an organization's members have a sense of what sort of transformation is desired (i.e., they have theoretical capacity) they still require skills on how to implement these changes. For example, Hinings and Greenwood (1988) describe situations where organizational members seeking to transform from one well-defined formal rationality to another (i.e., from one archetype to another) obtained theoretical and technical capacity by recruiting members from other organizations where the desired transformation had already taken place.

While it may be true that organizational members who do not know where they are going or how to get there are less likely to implement transformational changes, capacity can be and often is developed during implementation (e.g., recall Child and Smith's, 1987, description of transformation extending over decades).

It is hypothesized that transformational change attempts are more likely to be implemented when the capacity exists to do so. This hypothesis is based on two reasons.

First, a lack of theoretical and/or technical capacity is likely to strengthen the reasons resisting transformation. Second, a lack of capacity will limit the AFR reasons supporting the transformational change attempt.

Hypothesis

6. The greater the capacity of organizational members to implement a given transformational change attempt, the more likely it is to be implemented.

2.4 Research questions and summary

The model presented in Figure 2.1 provides an overview of the discussion in sections 2.1 through 2.3. It includes each of the figures which helped to guide the discussion in the preceding three sections of this chapter (with the exception that Figure 2.3 was simplified somewhat). The key dynamics of the model, namely the type of transformation being attempted, the rationalities supporting and opposing the attempt, and the presence of triggering and enabling conditions, give rise to the hypotheses which constitute the focus of this study (see Table 2.3 on next page).

In sum, the hypotheses identify five conditions which will increase the likelihood that a transformational change attempts will be implemented: 1) increased levels of performance-based crises, 2) increased levels of

Table 2.3
Six hypotheses to be tested

1. Attempts to transformationally change both an organization's ends as well as its means (i.e., Type 2 changes) will face greater resistance from organizational members than attempts to change means only (i.e., Type 1 changes) or ends only (i.e., Type 3 changes).

2. Transformational change attempts of the greatest historical consequence (i.e., Type 2 changes) which are primarily supported by formally nonrational culturally rational (i.e., alternative cultural rationality) reasons are more likely to be implemented than attempts which are not.

3. Transformational change attempts are more likely to be implemented the less they are based on (formally nonrational) politically rational reasons, and when they are less in the self-interests of change-initiators than of other stakeholders.

4. Increased crisis intensity increases the likelihood of transformation because:

a) increased crisis intensity is associated with an increase in the number of transformational changes being attempted;

b) increased crisis intensity is associated with an increased likelihood that change attempts are implemented;

c) increased crisis intensity is associated with a decrease in an organization's members' support for an existing formal rationality and an increase in support for an alternate formal rationality.

5. Heightened opportunity levels increase the likelihood of transformation because:

a) heightened opportunity levels are associated with an increase in the number of transformational changes being attempted;

b) heightened opportunity levels are associated with an increased likelihood that change attempts are implemented;

c) heightened opportunity levels are associated with a decrease in an organizational members' support for an existing formal rationality and an increase in support for an alternate formal rationality.

6. The greater the capacity of organizational members to implement a given transformational change attempt, the more likely it is to be implemented.

opportunities, 3) increased organizational capacity (AFR), 4) change attempts based primarily on ACR reasons, and 5) changes attempts based least on FnR PR reasons.

Implicit in the six hypotheses studied here are further permutations and combinations; a lack of any one or more of the above five conditions may be compensated for by an increase in any one or more of the remaining conditions. That is, transformational changes may still occur even if the hypothesized facilitating conditions are not all present. For example, a crisis is not necessary to trigger transformation if significant opportunities (e.g., a "readiness to change") and ACR reasons are present (Clark, 1970). Thus, there are likely to be exceptions to the general propositions contained in the hypothesizes.

Two contributions to the study of organizational change lie at the center of the discussion in this chapter, and of the model and hypotheses presented here. The first is the conceptual framework incorporating Weber's multi-dimensional rationalities, which promises to facilitate more careful study of the key processual dynamics of transformation. The framework is especially well-suited to distinguish between cultural and political factors which help to explain convergence versus cultural and political which help to explain transformation.

The focus on dismissed transformational change attempts represents the second key contribution introduced in this study. Previous research on transformational organizational change has primarily studied implemented changes, and possibly the consequence of these changes for organizational performance. The underlying premise guiding the present study is that organizational members are continually faced with transformational change attempts. A focus of this study is to uncover patterns which might help to explain why some attempts are implemented while others are dismissed. Patterns are hypothesized in terms of the type of change made (hypothesis 1), the rationalities upon which the change attempt is primarily based (hypotheses 2 and 3), and the role of performance-based crises (hypothesis 4), opportunities (hypotheses 5) and capacity (hypothesis 6).

CHAPTER 3

RESEARCH SITE AND DATA COLLECTION

3.0 Overview

This is the first of three chapters which describe the multiple measures research design utilized in the present study. In order to gather the data to permit analysis and hypothesis testing (Chapter 6), a research site was chosen (Chapter 3), specific transformational change attempts were identified (Chapter 4), and concepts in the multiple rationalities model of transformational change were operationalized and measured (Chapter 5).

The first part of this chapter provides criteria for choosing a research site appropriate for the present study, and identifies how the chosen site meets those criteria. The second part of the chapter briefly describes the relatively rich archival and interview data sources utilized in the present study.

3.1 Research Site Selection and Implications

The model developed in chapter 2 is generic, that is, it can be used to study organizational change in any given organizational setting. Thus, while a research site could have been chosen randomly, this was neither necessary nor preferable. In this genre of research, it makes sense to choose research sites where the phenomena being studied are most "transparently observable" (Pettigrew, 1989; cf.

Eisenhardt, 1989; Yin, 1984). The following criteria reflect the nature of the information required for the specific research questions being addressed here.

A. Criteria for choice of research site

Criterion #1. The chosen research site should have a history. This criterion reflects the call for studies of processes of organizational change to be longitudinal (Child and Smith, 1987; Hinings and Greenwood, 1988; Kimberly, 1976; Pettigrew, 1985, 1989). Cross-sectional non-longitudinal studies are not well-suited to capturing processes like those being studied here (Miller and Friesen, 1982; Yin, 1984). Kimberly (1976:329) adds that longitudinal research is also important for enabling the practitioner to understand the dynamics of change.

Criterion #2. The research site chosen should have experienced numerous attempts at transformational change, at least several of which should have been implemented. This follows from the argument that the research site should be one where the phenomena being studied are likely to be observable. While it is difficult to imagine an organization that does not experience regular convergent change, it was difficult to predetermine a priori how many attempts at transformational changes were made.

Criterion #3. It follows from criteria #1 and #2 that the research site not only needed a history, but also that its history could be studied. That is, it was preferable that there existed historical documents chronicling changes in the organization and persons who were involved in and remember changes. The availability of both these sources of information was especially important because of the rich information required by the change model presented above. Without adequate documentation and memories, the researcher could not study the cultural and political rationalities associated with the attempts at transformational change.

Criterion #4. Given criterion #3, it follows that the research site chosen should be accessible to the researcher. That is, the researcher had to be able to access the historical documents as well as to interview the organizational members who were involved in the change processes. Satisfying this criterion required that the researcher win the trust of organization members both at an official level as well as at an interpersonal level. Access was needed both to 'objective' facts as well as interviewees' personal subjective feelings and opinions. Clearly, this trust and access had to be nurtured and developed throughout the actual research (for a discussion on skills required in this type of research, see Yin, 1984, and Pettigrew, 1989).

While access is presented here as the fourth criterion, access was a primary consideration in actually choosing the research site. The first step in selecting a research site consisted of the researcher creating a list of a dozen or so organizations to which he thought he may gain access. From that list, an organization was chosen which satisfied the remaining criteria listed here.

Criterion #4a. Because the notion of cultural rationality represents a central focus of the present study, it was preferred to choose a research site in which the members had thought about and were able to articulate cultural rationalities. This is a further example of allowing theoretical propositions guide the choice of research site (Pettigrew, 1989).

Criterion #5. The size of the research site should permit a holistic versus a partistic approach, as is repeatedly called for in this area of research (Hinings and Greenwood, 1988; Miller and Friesen, 1982; Pettigrew, 1989). The size of the chosen research site had to reflect pragmatic realities since, for example, a holistic study of a multinational corporation would require a great deal more time and resources than a holistic study of a neighborhood family-owned grocery store. Yet, the site should not be so small as to be a study of small group behavior rather than organizational phenomena.

Miller and Friesen (1982:1029) argue that longitudinal holistic studies which take place in a single research site, such as identified by the criteria presented above, are uniquely suited for generating "rich insights into organizational politics and processes that best reveal the dynamics of decision making". A prime strength of these types of studies is that they provide:

> "... a basis for real insight into how organizations make decisions, adapt to their environments, enact new environments, and restructure themselves. There is a wealth of detail on sequences of decisions and events and this affords much knowledge on the time priority of change in variables of strategy, structure, environment, decisions making methods and executive personality. We begin to see just why things change and this can help in building better models." (Miller and Friesen, 1982:1016 emphasis in the original)

B. Research site chosen

The research site chosen was the Canadian Mennonite Bible College (CMBC), a small private college in Winnipeg, Manitoba. CMBC was founded in 1947 in the basement of a church with 5 faculty members and twenty-five students. Since then it has changed its physical facilities twice, and presently has over one hundred and fifty students and twenty faculty and staff. Even from this short introduction, it was apparent that CMBC has a history of organizational change and likely had experienced transformational change (criteria #1 and #2).

Furthermore, CMBC seemed to be an appropriate size to allow for a successful holistic study (criterion #5). The College was not so large as to make a holistic study of it unreasonable. That is, it seemed reasonable to assume that the researcher could gain a satisfactorily comprehensive understanding of CMBCs changes by reading the available archival materials and interviewing key actors associated with CMBC. Furthermore, CMBC was not so small that it represented analysis of small group behavior and phenomena, as might have been the case if an organization with only one or two members had been chosen.

A wealth of archival material on CMBC was available, and many key people in its forty-year history were still available and willing to be interviewed (see section 3.2). Before starting the study, the researcher received approval from both the current President of CMBC and the General Secretary of CMBCs parent organization, the Conference of Mennonites in Canada (CMC). Also, all but one of CMBCs past-presidents were still living and agreed to participate in such a study. Furthermore, the chief archivist at the CMC archives (which are located on the CMBC campus) was from the beginning very supportive of such a study. Finally, the researcher enjoyed personal connections to some of the faculty through church and family relations. However, the researcher himself had never been a full time student at CMBC (he once audited an evening course) and had no relatives on CMBCs past or present faculty or Board. In sum, recognizing that complete information to look at the types of issues and questions which need to be addressed in this genre of research are virtually impossible to find in the real world, the research opportunities CMBC offered seemed adequate for a useful study (criteria #3 and #4).

Finally, as an organization in the field of higher eduction as well as an organization dealing with religion, CMBC offered a unique opportunity to read documents that explicitly incorporated cultural rationality and to interview persons trained to be fluent in thinking about and articulating such rationality (criterion #4a). For example, faculty at CMBC are trained and hired to develop and teach a distinctively Mennonite cultural rationality, and to help students integrate Anabaptist values and beliefs into their lifestyles.

The importance of this aspect of the setting should not go underemphasized. Research explicitly focusing on how cultural rationality influences political and formal rationality is rare in organizational analysis. Higher education institutions have proven to be a good site to study these rationalities in the past (e.g., Clark 1970, 1972; Cohen, March and Olsen, 1972; Meyer and Rowan, 1977, 1983; Zucker, 1987). However, even Clark's (1972:8) concept of organizational saga, which is central to his empirical examples of how cultural rationality suppresses political and formal rationality, "emerged late in the study". In a sense, the present study continues where studies like Clark's finish; it accepts that cultural rationality may suppress formal and political rationalities and sets out to understand how and when this happens.

C. Implications

1. External validity and generalizability. Because the present study adopted a longitudinal holistic orientation to facilitate theory development, and because of the pragmatic realities of this style of research (see earlier discussion under criterion #5), data gathering was limited to one research site. Critics often argue that a single research site offers a poor basis for generalizing (see Miller and Friesen, 1982; Yin, 1984). For example, because this study required substantial investment and commitment on the part of CMBC members, CMBC may well have characteristics which differentiates it from organizations which would not permit such research (Kimberly, 1976:344). Streeck (1986:92) agrees that not many organizations would offer the cooperation necessary for a reconstruction of their internal processes and history. Those that do "may not be representative of the universe" and, worse yet, may try to "manipulate the researcher, either by socializing him or her into their value systems or by making cooperation dependent on 'useful' results or at least the display of a 'reasonable' attitude."

Although studies to compare findings across different research sites must await future research, research at a single site is valuable: i) if the nature and quality of the findings are unique or otherwise strong, or ii) if the treatment of data is "sufficiently generic" (Pettigrew, 1989), that is, if the study is analytical and identifies "important patterns or relationships among the variables that can be used to help generate or support theories" (Miller and Friesen, 1982:1016).

Further, according to Yin (1984), research such as that presented can be analogous to experimental research; both rely on analytical generalization rather than on statistical generalization associated with survey research. Tsoukas (1989) makes the same point from a metatheoretical perspective.

In sum, this discussion underlines the importance of ensuring that the present research remains theory-driven, and that analysis remains theory-based. Further implications of the generalizability of the present study will be taken up in chapter 7.

2. Objectivity. A potential problem existed in having the researcher remain objective while attempting to gain subjective information. In this particular case, the researcher being a member of the Mennonite community may have resulted in improved access to and understanding of some matters, but he may also have been blind (i.e., have been "native") to others. The researcher attempted to remain sensitive to these dangers, and used his advisor as a sounding board to retain objectivity.

The problem of objectivity belongs to a larger set of skills required to perform this type of research (for a more complete listing of these, see Yin, 1984; also Pettigrew, 1989). The researcher's doctoral studies included preparation and training in the types of skills and methods utilized in the present research.

3. Dependence on interviews. It was expected that interviewees would have reason to hide some information from the researcher, perhaps to protect themselves, others, or CMBC itself. In addition, because the research goes back over forty years, it was expected there could be genuine memory loss on some possibly important issues. Especially challenging was determining the role of each rationality because the rationalities associated with behavior could change over time. Such changes are crucial for understanding dynamics of transformation, but they were also difficult to study retrospectively (cf. Van de Ven, 1987). Although reference to archival materials and historical documents (i.e., triangulation) served to corroborate or disconfirm interview data, these could not replace the rich data available from interviewees and respondents.

4. Type of organization chosen. The fact that CMBC is a not for profit (NFP) organization merits comment. Traditionally, business organizations seem to have been the dominant organizational type studied. The decision in the present case to study a NFP organization was partly influenced by access (for profit organizations may not have been as likely to have extensive historical archives and be willing to let themselves be scrutinized in the same way as CMBC did), but the researcher believes that choosing a NFP organization was not a compromise. Indeed, given that

almost one half of Canada's Gross National Product is generated by NFP organizations and that the importance of NFP organizations is growing, it is very appropriate for contemporary organizational researchers to study NFP organizations.

5. Grounded theory. A distinct advantage associated with the present research design, and with its emphasis on rich archival and interview data, is that it offers opportunity to develop grounded theory (Glaser and Strauss, 1969). Indeed, some components of the revised transformational change model described in chapter 7 were discovered from the systematically-obtained data used to test the six hypotheses developed in chapter 2.

3.2 Data sources utilized

The present study made use of five sources of data: interviews, direct observations, mailed out questionnaires, documents and archival records. These sources were used iteratively. This use of multiple sources of evidence, as well as utilizing informants to confirm central findings, and maintaining a chain of evidence, all contributed to maximize construct validity (Yin, 1984; cf. Jick, 1979, on triangulation).

i) interview resources

Interviews served as an important source of information in the present study. Extensive interview resources were available to the researcher (see Appendix A, Table 1), and several key interviewees were interviewed on numerous occasions. In total 54 interviews were performed with 34 different interviewees totalling 88 hours (see Appendix A, Table 2). This compares favorably with similar longitudinal studies of processes underlying transformational change (see note at end of chapter).

ii) direct observation

Between July 1989 and July 1990, the researcher made regular visits to the CMBC campus for interviews, to work in the archives, and to attend CMBC board meetings, CMBC faculty meetings, CMC General Board and Executive meetings, as well as other events at CMBC (e.g., annual lecture series, book launching, chapel services, meals in the cafeteria). The purpose of these observations was not so much to perform real time longitudinal research, but more to get a sense of what CMBC was all about, how different meetings were run, and to develop rapport with key interviewees.

iii) mailed out questionnaire

Near the end of the data collection period, questionnaires related to each identified transformational change attempt were mailed to three different respondent groups (faculty members, board members, and other interested individuals). As shown in Appendix A, Table 3, a total of

165 questionnaires were mailed out to a total of 71 different respondents, with no respondent receiving more than 5 questionnaires. Of the original 165 questionnaires distributed, 123 were returned (81%), but not all these could be used in the analysis (five questionnaires were dropped because they had been returned only partially completed). At least 17 (10%) of the original questionnaires had been mailed to persons who indicated that they could not complete the survey for various reasons (e.g., age, ill-health, lack of involvement in the decision making process), leaving a maximum of 148 viable questionnaires distributed. Of these 148 viable questionnaires, 107 (72%) were used in the analysis described here.

iv) documents and archival records

Most documents and archival records were located in the Heritage Resource Center located on the CMBC campus. As detailed in Table 3.1 (see next page), of the over 20,000 pages of materials specifically related to CMBC available, approximately 13,750 pages were reviewed. These included Board meeting minutes, faculty meeting minutes, minutes from annual CMC meetings, and annual CMBC calendars.

Table 3.1
CMBC-related archival records reviewed

years	type of document	no. of pages (approximate)
1947-89	CMBC calendars	2,000
1950-89	CMBC student yearbooks	2,000
1945-90	CMBC board meeting minutes	2,250
1948-90	CMBC faculty meeting minutes	4,000
1945-89	CMC proceedings of annual meetings	500
1945-90	Annual financial reports	500
1945-65	correspondence (board, President)	500
1945-	miscellaneous	2,000
	total	13,750

Conclusion

The chapter described how an appropriate research site was chosen and the various methods used to collect data. Because of the holistic nature of the study, much historical and qualitative data gathering was necessary. Triangulation was used where possible to better understand and confirm key findings.

Endnote:

1. In Pettigrew's (1985a:40 and 41) study of five organizational units at ICI, 175 interviews were performed involving 134 interviewees taking approximately 500 hours, or on average 35 interviews with 27 interviewees totalling 100 hours per organizational unit. Pettigrew's organizational units were considerably larger than CMBC, and

his study covered 19 years (1965 to 1983) compared to 49 years in the present study (1942 to 1990). Child and Smith's (1987) study of Cadbury's was based on 50 extensive interviews.

CHAPTER 4

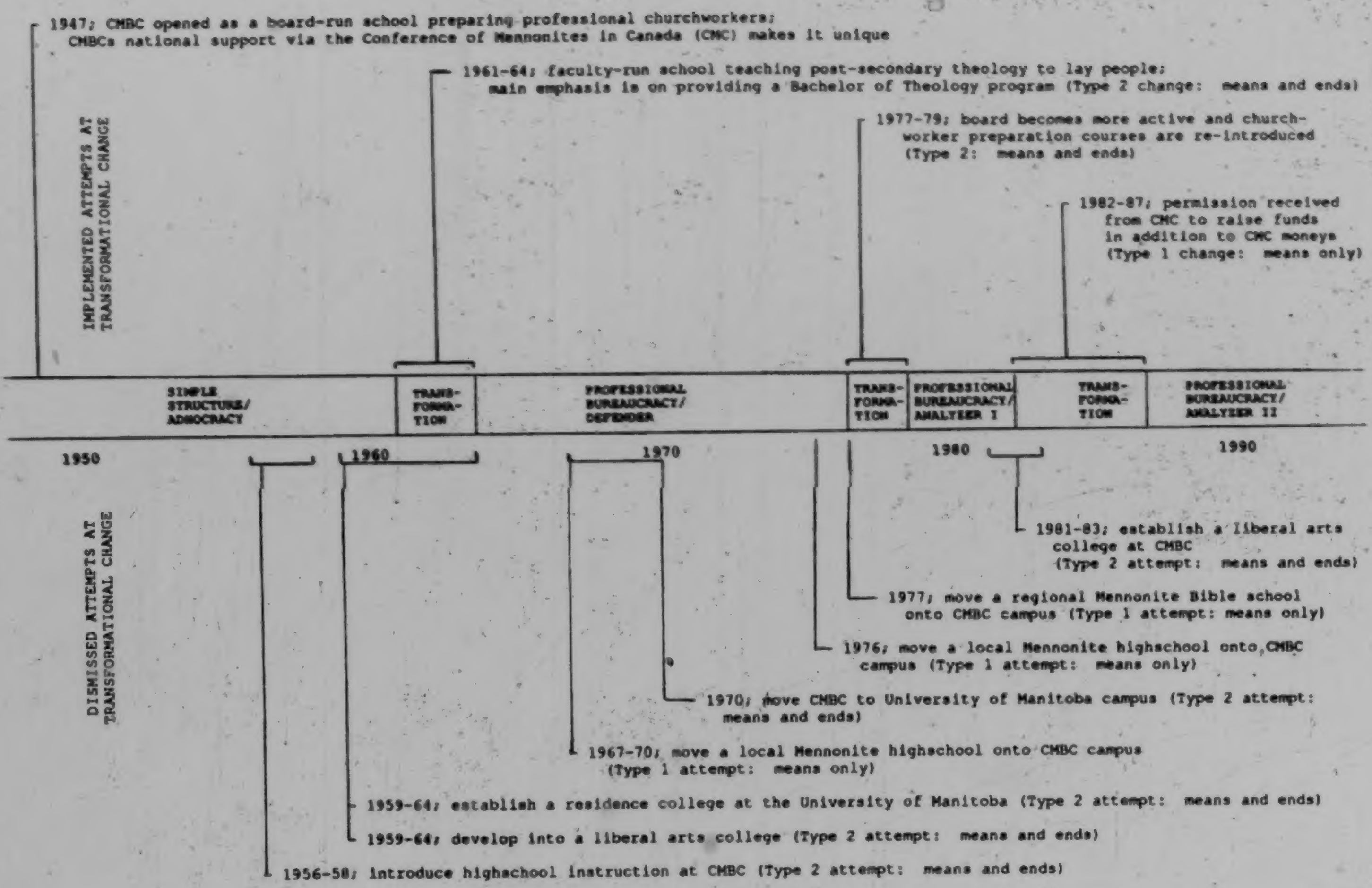
IDENTIFYING ELEVEN TRANSFORMATIONAL CHANGE ATTEMPTS

4.0 Overview

This chapter describes how the transformational change attempts shown in Figure 4.1 (see next page) were identified. Figure 4.1 provides a time line demarking periods of transformation and convergence at CMBC from 1942 to 1990 (including names to describe each period of convergence). Above this time line each of the three implemented transformational change attempts which took place at CMBC are briefly described, and below it each of the eight dismissed transformational change attempts which took place at CMBC are briefly described.

The process of specifying transformational change attempts which took place at CMBC involved several steps. First, three bodies of literature were reviewed to help place CMBC in its context as a Canadian Mennonite institution of higher education. This permitted the rationalities upon which the domain, structure and systems characterizing CMBC were based to be identified and compared to other institutions in CMBCs environment. The first body of literature described the experiences that had shaped beliefs which characterized Mennonites in western Canada in the 1940s. The second corpus described the evolution of post-secondary education in Canada. The third body of literature consisted of existing case studies which

Figure 4.1
Time line depicting periods of transformation and convergence at Canadian Mennonite Bible College (CMBC) and identifying implemented and dismissed change attempts


1947; CMBC opened as a board-run school preparing professional churchworkers;
CMBCs national support via the Conference of Mennonites in Canada (CMC) makes it unique
1961-64; faculty-run school teaching post-secondary theology to lay people;
main emphasis is on providing a Bachelor of Theology program (Type 2 change: means and ends)
1977-79; board becomes more active and church-worker preparation courses are re-introduced (Type 2: means and ends)
1982-87; permission received from CMC to raise funds in addition to CMC moneys (Type 1 change: means only)
IMPLEMENTED ATTEMPTS AT TRANSFORMATIONAL CHANGE
SIMPLE STRUCTURE/ ADHOCRACY
TRANS-FORMA-TION
PROFESSIONAL BUREAUCRACY/ DEFENDER
TRANS-FORMA-TION
PROFESSIONAL BUREAUCRACY/ ANALYZER I
TRANS-FORMA-TION
PROFESSIONAL BUREAUCRACY/ ANALYZER II
1950
1960
1970
1980
1990
DISMISSED ATTEMPTS AT TRANSFORMATIONAL CHANGE
1981-83; establish a liberal arts college at CMBC (Type 2 attempt: means and ends)
1977; move a regional Mennonite Bible school onto CMBC campus (Type 1 attempt: means only)
1976; move a local Mennonite highschool onto CMBC campus (Type 1 attempt: means only)
1970; move CMBC to University of Manitoba campus (Type 2 attempt: means and ends)
1967-70; move a local Mennonite highschool onto CMBC campus (Type 1 attempt: means only)
1959-64; establish a residence college at the University of Manitoba (Type 2 attempt: means and ends)
1959-64; develop into a liberal arts college (Type 2 attempt: means and ends)
1956-58; introduce highschool instruction at CMBC (Type 2 attempt: means and ends)

incorporated a longitudinal dimension to look at specific transformational changes in small private colleges.

After developing an understanding of CMBC in its larger context, the second step began with identifying periods of convergence at CMBC. Both qualitative and quantifiable data were used to identify trends and changes in the fit between CMBCs domain, structure and systems. After periods of convergence had been established, the next step was to describe the implemented transformational change attempts which signalled the beginning of one and the end of the previous period of convergence. Identifying the specific nature of the transformational change required drawing heavily on archival (especially meeting minutes) and interview data.

The third step was to identify dismissed transformational change attempts. Here again, the primary sources of data were from interviews and archival sources.

4.1 Background information

Ever since the 1500s, when early anabaptists suffered persecution because they: i) rejected infant baptism in favor of adult believer's baptism (anabaptism literally means "to baptize again", which separated church from state, thereby threatening state churches); ii) took seriously the call for the church to function as a "priesthood of all believers" (which threatened centralized state religions); and iii) embraced non-violence (which threatened the ability of the state to defend itself militarily), Mennonite anabaptists have recognized themselves as a unique people (neither protestant nor catholic (Klaassen, 1973)) and have gone to great lengths to avoid assimilation which might erode their distinctiveness (Peters, 1986; Weaver, 1989). Thus, when leaders of the Conference of Mennonites in Canada (CMC) recognized that the Fundamentalist bible school movement flourishing on the Canadian prairies in the 1940s was drawing its young people and threatening to erode the distinctiveness of CMC churches, CMBC was founded in 1947 to foster the CMC identity and to help prepare full-time churchworkers (Regehr, 1972). Over the years, CMBC has helped mitigate the urbanization of largely rural German-speaking Mennonites (Driedger, 1967).

The founding vision for CMBC, to prepare leaders and full-time churchworkers for CMC, fit comfortably with the orientation toward higher education characterizing Canada at that time, which had by then developed from providing a Canadian alternative to USA and British schools for elites and scholars (pre-1860s) to providing professional training (added in 1860-1905) and servicing local community needs (added in 1905-1955) (Bonneau and Corry, 1972; Flexner, 1930; Harris, 1976; Harvey and Lennards, 1973; Lawr and Gidney, 1973; Ross, 1896). Furthermore, the founding of CMBC as a small church-based college was in keeping with Canadian history; many public universities in Canada began as relatively small church-based colleges.

Previous research describing transformational change attempts in small private colleges helped to operationalize the model presented in Figure 2.1. The case studies reviewed were chosen to represent a cross-section of perspectives: one was by a sociologist (Clark, 1972), one by a researcher in higher education (Hammond, 1984), one by a college president (Levine, 1984), one by an academic dean (Lindquist, 1978), one by an administrator (Fuller, 1975), one from the perspective of board members (Wood, 1985), and one by faculty members (Bers and Sullivan, 1985; note that this was of a small public college, as a faculty perspective from a small private college was not found). From this literature review Table 4.1 (see next page) was constructed, which lists the frequency of performance criteria and key interest groups associated with transformational change attempts in the small private colleges studied. Specifically, key performance criteria in this organizational setting are: enrollment, relations with the supporting constituency, and financial viability. Poor performance in one of these three areas could trigger transformational change. Key groups associated with transformational change attempts include: faculty members (and especially presidents), board members, students, and members of the larger constituency. These groups are important for understanding the processes of transformational change.

Table 4.1
Interest groups and performance criteria associated with transformational change in small private colleges;
A summary of seven case studies

A. Key groups in transformational change process

i) faculty members
  - identified in all 7 cases
  - in 5 cases academic and administrative officers played a key role
  - in 5 cases Presidents played a key role
  - in 3 the Presidents were newly-appointed

ii) students
  - identified in 6 cases

iii) board members
  - identified in 4 cases

iv) larger constituency
  - identified in 4 cases
  - alumni relations identified in 3 cases

B. Key performance criteria

i) enrollment
  - identified in 5 cases

ii) constituency relations
  - identified in 4 cases
  - alumni relations in 3 cases

iii) financial support
  - identified in 2 cases

From case studies by: Bers and Sullivan, 1985; Clark, 1972; Fuller, 1975; Hammond, 1984; Levine, 1984; Lindquist, 1978; Wood, 1985.

4.2 Periods of convergence

Identifying periods of convergence required tracking changes in CMBCs domain, structure and systems across its forty year history. The periods of convergence and transformation described here were established based on interviews, minutes and quantifiable data from archival records and documents. This triangulation enhanced construct validity and the richness with which periods of convergence and transformation could be understood.

The primary data sources used to establish periods of convergence were interviews and board meeting minutes. Reading board meeting minutes and annual reports provided important background information to begin to establish periods of convergence at CMBC, but the interviews were most important in enabling the researcher to develop an understanding of the rationalities underlying CMBC. Many hours were spent with interviewees describing different aspects of CMBC and events in its history before the researcher felt confident in establishing periods of convergence. In this process the researcher also gathered information identifying the interests of groups and the key values associated with each era, thus enabling the identification of FPR and FCR behavior associated with each convergence period (as will be shown on Tables 4.5 through 4.8). These periods, and their description, were confirmed and fine-tuned by referring back to archival materials and interviewees. As is characteristic of this style of research, the researcher wrote literally hundreds of pages of narrative history in order master the data and to identify the periods of convergence.

Following Kimberly (1987), the determination of CMBCs periods of convergence was anchored by a thorough study of the organization's formative years. A special effort was made to exhaustively study all archival documents related to CMBC dated 1941 through to 1952 (approximately 1,500 pages of mostly German-language personal correspondence, board and faculty meeting minutes, and so on) and to interview all remaining participants associated with CMBC during those years (e.g., original staff, board and faculty members). This helped the researcher to identify the key founding values, interests, domain, structures and systems of CMBC.

Table 4.2 (see next page) displays the breadth of archival information drawn on to establish periods of convergence. These measures used were based on elements identified as important during interviews, on elements shown to be important in previous studies of change in small private colleges, on the availability of data, and on the intuitive sense of an organizational researcher.

An abbreviated history of CMBC

The following abbreviated history of CMBC, which puts into words some of the story depicted in Figure 4.1, provides a context which may help to understand the more detailed descriptions found elsewhere in this study.

Table 4.2
Overview of the types of data used to establish periods of convergence

Ends: measures of domain included:

- CMBCs purpose as defined in its calendar, constitution, and other supporting documents
- realignments vis-a-vis CMBCs parent organization (CMC)
- the entry or exit of other CMC-related institutions of higher education
- types of programs of study offered
- percentage of graduates entering full-time churchwork
- number of graduates entering full-time churchwork

Means: measures of structures and systems included:

- relative influence of faculty and board in making decisions about personnel, finance, and academic program
- changes in academic program of studies, including:
    - departmental additions, realignments
    - types of faculty positions
- hours of instruction offered in various academic areas as a percentage of total hours of instruction
- CMBC operating income from CMC as a percentage of total contributions to CMC
- average number years of service per board member
- average number years of service per faculty member
- enrollment
- percentage of non-graduating students returning to CMBC for an additional year of study
- average number of academic degrees per full-time faculty member (by type of degree) as a measure of specialization

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First period of convergence. In the 1940s leaders of the Conference of Mennonites in Canada (CMC) recognized the need for a CMC post-secondary school in order to i) ensure that CMC young people had an opportunity to study in a setting where distinctives associated with CMC congregations could be highlighted, and ii) train full-time churchworkers for CMC-related churches and agencies. After exploring numerous locations and struggling to find properly accredited leadership, the school opened in 1947. During the first decade CMBC established itself, attracting more students and support from the CMC constituency which permitted it to move from several makeshift facilities onto a new campus of its own. During this period CMBC had a fairly simple structure, relatively low degree of formalization, low specialization, and power was centralized in the board leadership. This paralelled CMC, and it is noteworthy that CMCs chairman was also CMBCs chairman.

By the late 1950s CMBCs role as the only CMC-related post-secondary institution was being threatened (by a new residential college being founded in Ontario, Conrad Grebel College), its academic accreditation suffering (due to political factors influencing University of Manitoba), and its purpose to train full time churchworkers falling into disfavor. Several transformational changes were attempted in the late 1950s and early 1960s, including efforts to establish a residential college at the University of Manitoba and to develop into a liberal arts college.

Second period of convergence. In the early 1960s the educational philosophy which would characterize CMBCs second period of convergence was developed: the purpose of CMBC became to provide theological education to CMC lay members (professional churchworkers were to be trained at a CMC-related seminary). An increase in the level of bureaucratization in CMBCs parent organization (Peters, 1986), coupled with the crises facing CMBC at the end of the first period of convergence, created a situation where bureaucratization at CMBC increased and authority was moved into the hands of faculty members.

During the mid-1970s things were going well for CMBC. The unrest characterizing post-secondary institutions during that late 1960s had been weathered and improved constituency relations restored, and attempts to move a Winnipeg-based Mennonite high-school (1967-70, 1976) or Bible school ((1977) onto CMBCs campus were dismissed, as was an attempt to move onto the University of Manitoba campus (1970). By the second half of the 1970s there was a sense of "readiness" for change, and when CMBCs President (who had served since the beginning of the second period of convergence) accepted a position to lead the CMC-related seminary, special meetings between board and faculty members were held as to changes CMBC might make.

Third period of convergence. When CMBC strengthened its Practical Theology program in the late 1970s, it represented a significant shift from the Defender strategy characterizing its second period of convergence. Re-emphasizing Practical Theology signaled that CMBC was moving into areas previously the unique domain of now-struggling CMC-related Bible schools and seminary. This change accommodated several long standing criticisms CMC constituency members had of CMBC, for example, that CMBC was too theoretical (and should be more experiential), and that CMC-related congregations and agencies were not able to find enough CMC-trained full time churchworkers.

The limits of this movement toward Practical Theology were tested in the early 1980s, when a group of well-to-do Mennonite businessmen attempted to establish a full-fledged liberal arts college on CMBCs campus. With the dismissal of this attempt, efforts to raise money CMBC outside of the centrally-administered CMC funds gained impetus.

Fourth period of convergence. In the early 1980s, partly due to an international economic recession, CMBC found that funding available from CMC was unable keep up with CMBCs growing enrollment. However, for CMBC to raise money outside of CMCs central funds (a solution being adopted by many similar organizations during that time) meant that CMBC would have to compromise on two key principles. First, it would distance CMBC from its parent organization, and philosophically and theologically many CMBC members felt it important for CMBC to remain accountable directly to churches. Second, it shifted the emphasis away from community discernment (i.e., individuals' financial donations should be given to a local congregation which, as a corporate body, decides how to use these funds) and toward individual inclination (e.g., individuals give money wherever they desire or feel called to).

Thus, the decision to permit CMBC to raise money to supplement that which came through CMC was difficult, and even after it had been made CMBC Board members struggled with its implications (e.g., discussing whether a ceiling should be placed on the percentage of CMBC funding which is extra-CMC). One result of this transformational change is that CMBCs current President (who joined in 1983), spends a lot of time fund-raising in the CMC constituency.

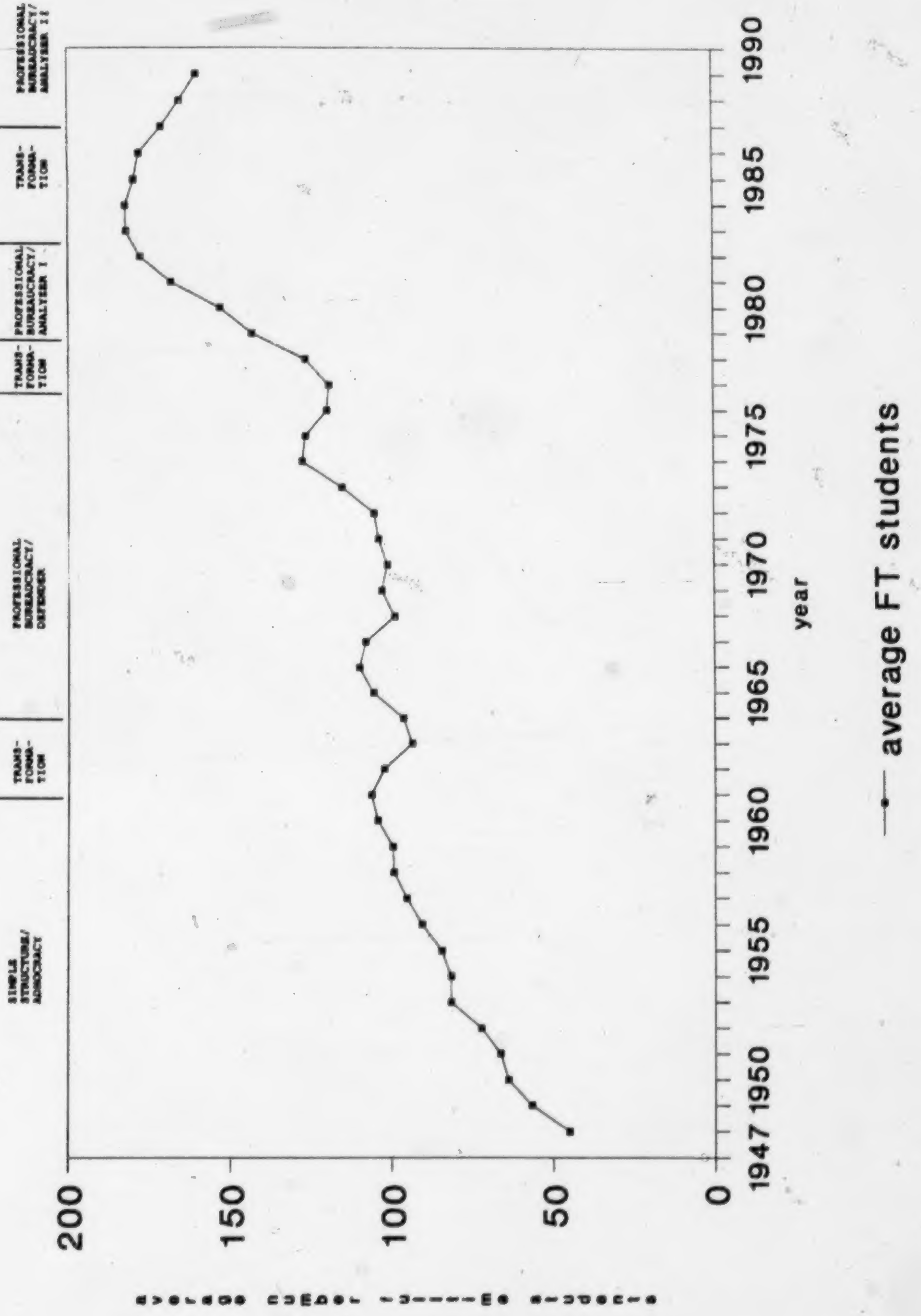
Quantifiable support

The time lines presented in Figures 4.2 through 4.11 on the following pages provide some quantifiable support for the periods of convergence established from interviews and board minutes. Each figure is briefly described, and key patterns associated with each period of convergence are summarized in Table 4.3. A narrative description of the underlying rationalities associated with each period will be provided later in the chapter (see Tables 4.4 through 4.8).

Note that although reporting practices changed over the forty-plus years during which the data upon which these figures are based were gathered, efforts were made to ensure that patterns identified in the figures are "real" and not artifacts of different reporting practices. Note also that in these figures, "average" values were calculated for any given year "n" by the formula "average={(n-1)+(n)+(n+1)}/3". For this reason, for example, the first enrollment data in Figure 4.2 are for 1948, one year after CMBCs founding.

Figure 4.2 (see next page) shows the average number of full-time students attending CMBC by year from 1948 to 1989. The Figure shows that student enrollment at CMBC climbed steadily until CMBCs first period of transformation in 1961, then enrollment stayed fairly stable until it increased

Figure 4.2
Average number of full-time students attending CMBC; 1948 to 1989



during CMBCs second period of transformation in 1978. Note that the three consecutive years of declining enrollment prior to the 1978 transformational change was the longest period of continual decline up until that point in CMBCs history. After rising during the third period of convergence, enrollment fell again in the mid 1980s.

Figure 4.3 (next page) provides more detailed information on the composition of CMBCs student enrollment. For example, it shows how a growth in numbers of new students helped to fuel the rise in total enrollment beginning in the late 1970s.

Figure 4.4 (two pages ahead) shows what percentage of CMBC students from any given year (excluding graduating students) continued their studies at CMBC in the following year. Figure 4.4 clearly shows how a trend towards fewer students returning was stopped and reversed between the first and second period of convergence in 1959/1960. Also, the late 1970s witnessed new heights in returning students.

Figure 4.5 (three pages ahead) shows that the average percentage of CMBC graduates (by graduating year) entering churchwork dropped substantially between the first and second period of convergence at CMBC. During the first period of convergence about two-thirds of CMBCs graduates entered into full-time churchwork (this includes work as missionaries, pastors, and pastors' spouses). This dropped sharply after 1960, and soon only one-third of CMBCs graduates entered into full-time churchwork.

Figure 4.3
Average composition of full-time student body at CMBC; 1949 to 1988

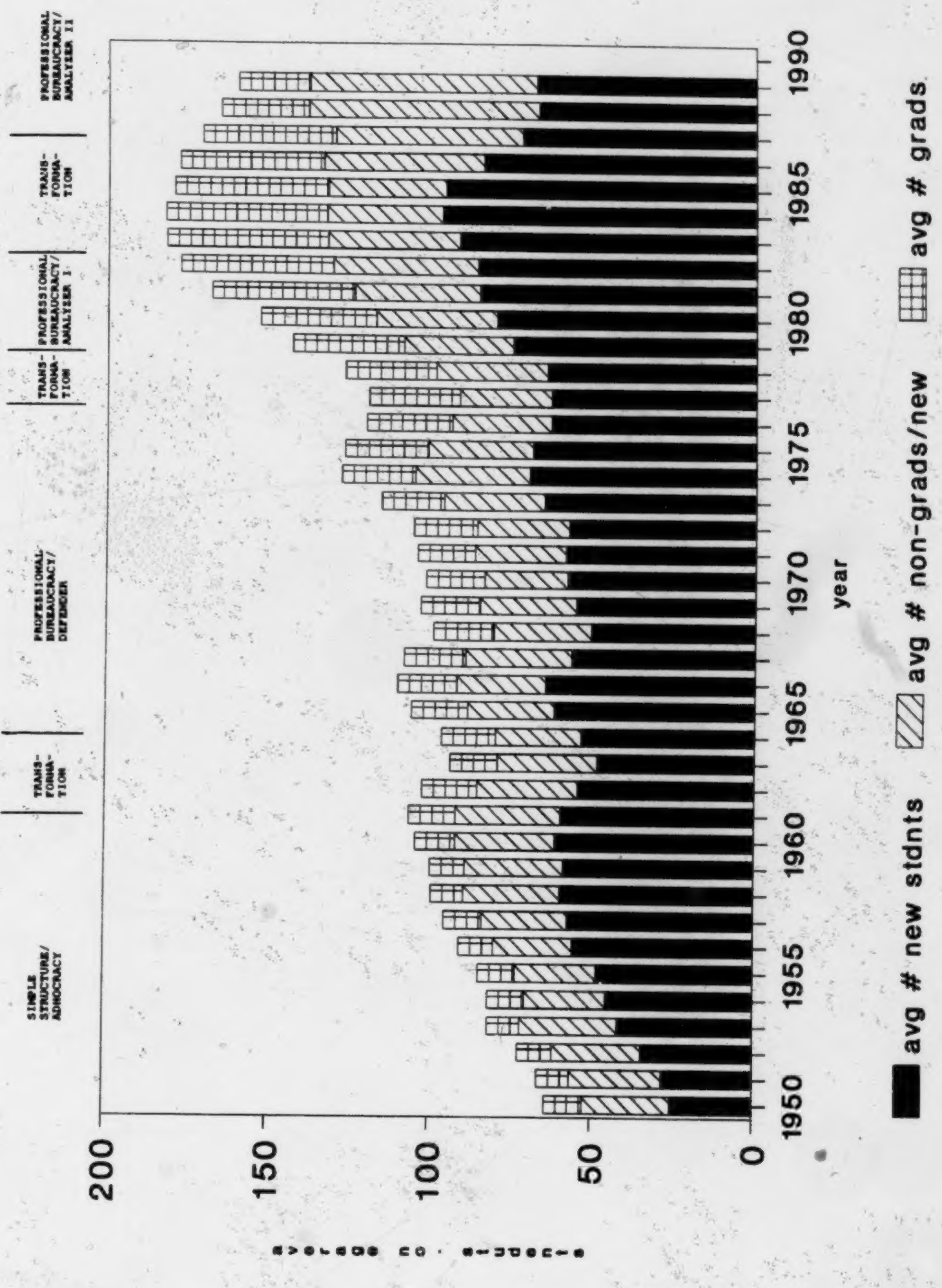


Figure 4.4
Average percentage of non-graduating students returning for an additional year of study at CMBC; 1949 to 1988

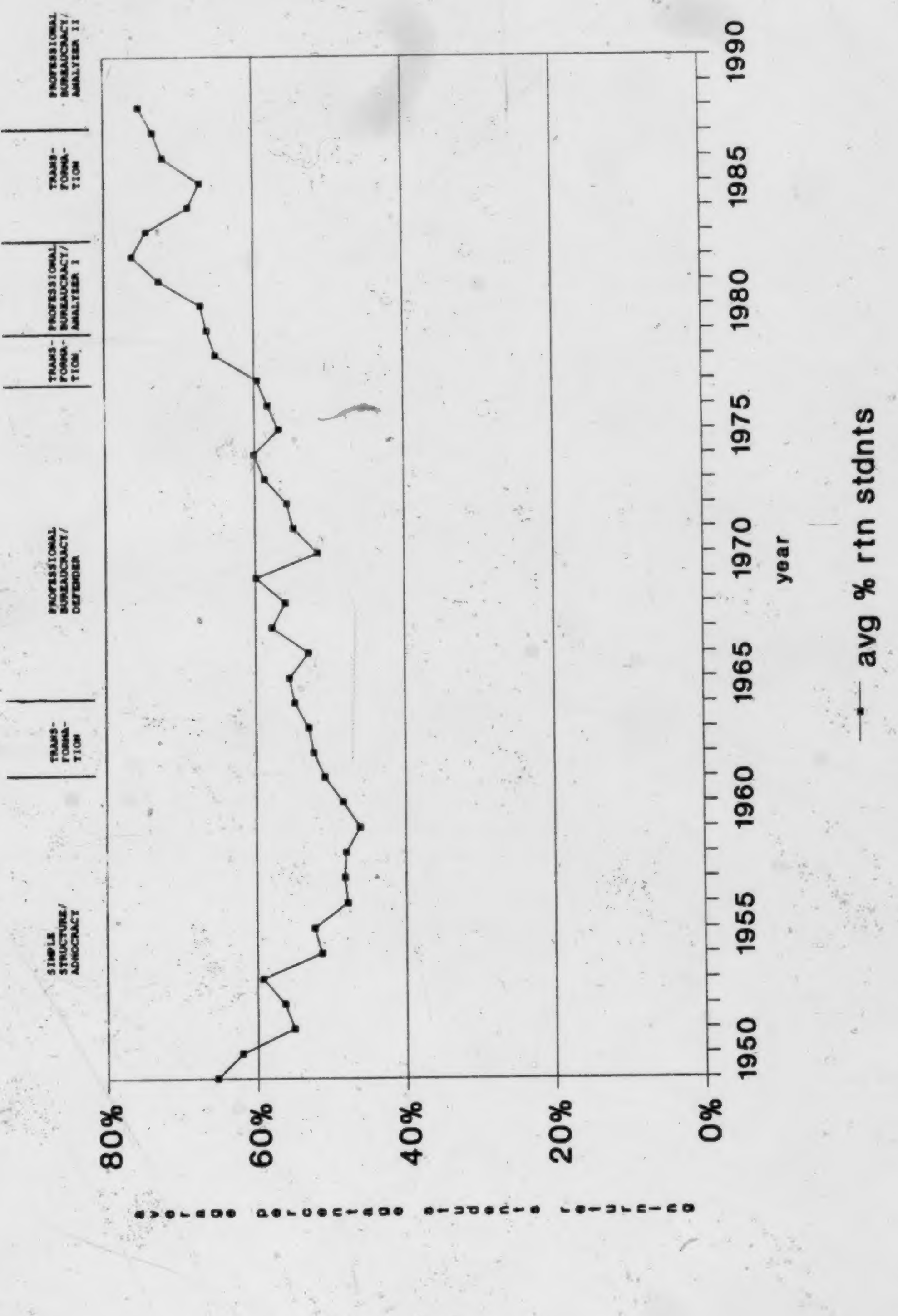


Figure 4.5
Average percentage of CMBC graduates entering full-time churchwork some time after graduation (by year of graduation); 1950 to 1987

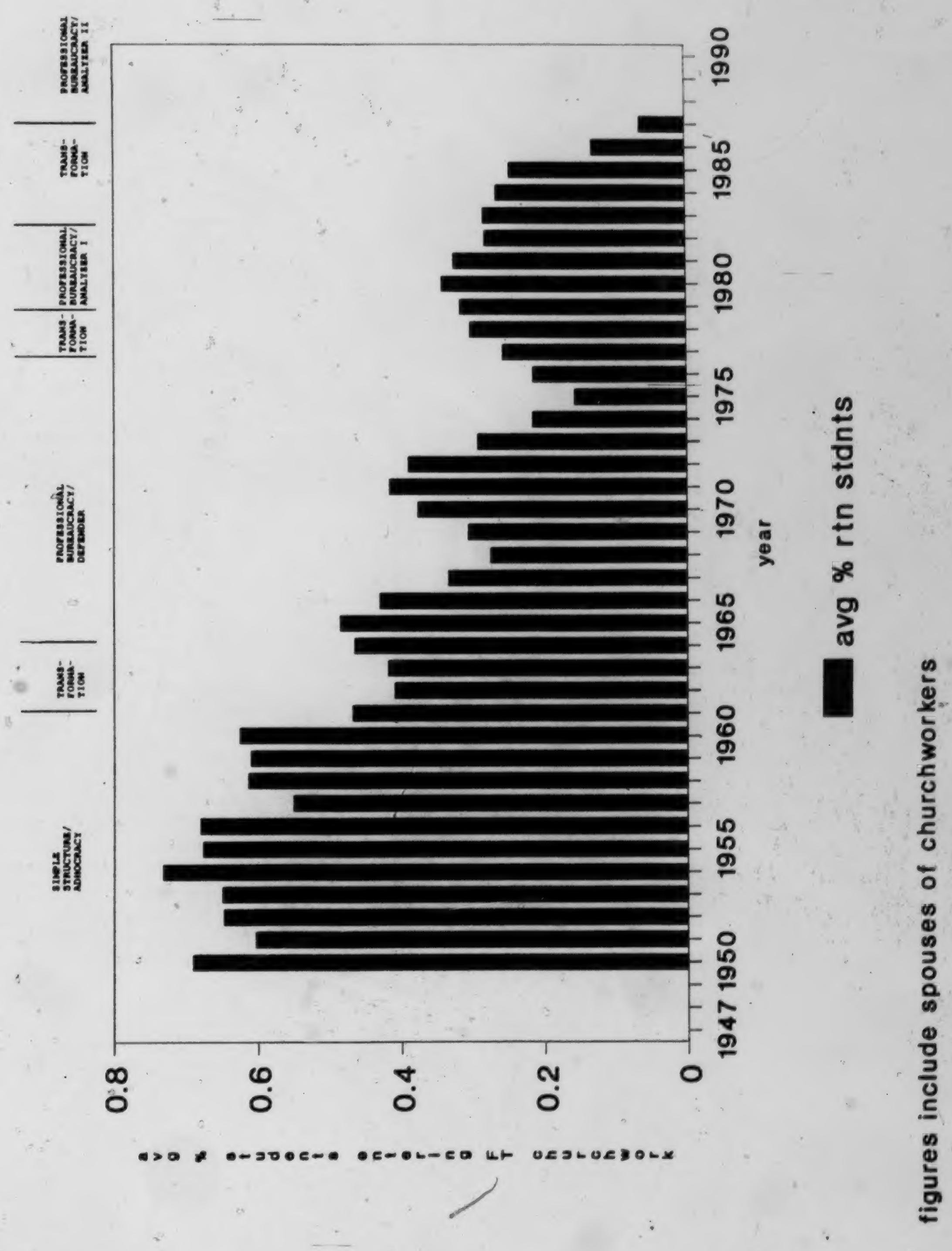


Figure 4.6 (next page) shows how the average number of CMBC graduates entering full-time churchwork by year remained relatively stable at six or seven graduates per year until 1977, and then doubled moving into the third period of convergence after Practical Theology was strengthened at CMBC. This increase is certainly greater than what one could expect given the increase in student enrollment during these years (cf. Figure 4.2 and Figure 4.5). Note that numbers in the later years may be somewhat conservative because there is often a time lag between graduation and entrance into full-time churchwork (for example, because students continue their studies at seminary). (Also note that, in order to emphasize the differences between periods, in Figure 4.6 "average" was calculated for two years before and after a given year "n" according to the following formula: "average = {(n-2)+(n-1)+(n)+(n+1)+(n+2)/5}").

Figure 4.7 (two pages ahead) shows how academic specialization of the average faculty member at CMBC has changed from one period of convergence to the next. Throughout the first period of convergence, CMBC faculty members on average held one and a half academic degrees. In the second period of convergence this doubled, largely thanks to a rapid increase in number of masters degrees held by faculty. The third period of convergence is associated with an increase in doctorate degrees held by faculty members, increasing fifty per cent from 1978 to 1981.

Figure 4.6
Average number of CMBC graduates entering full-time churchwork some time after graduation (by year of graduation); 1951 to 1984

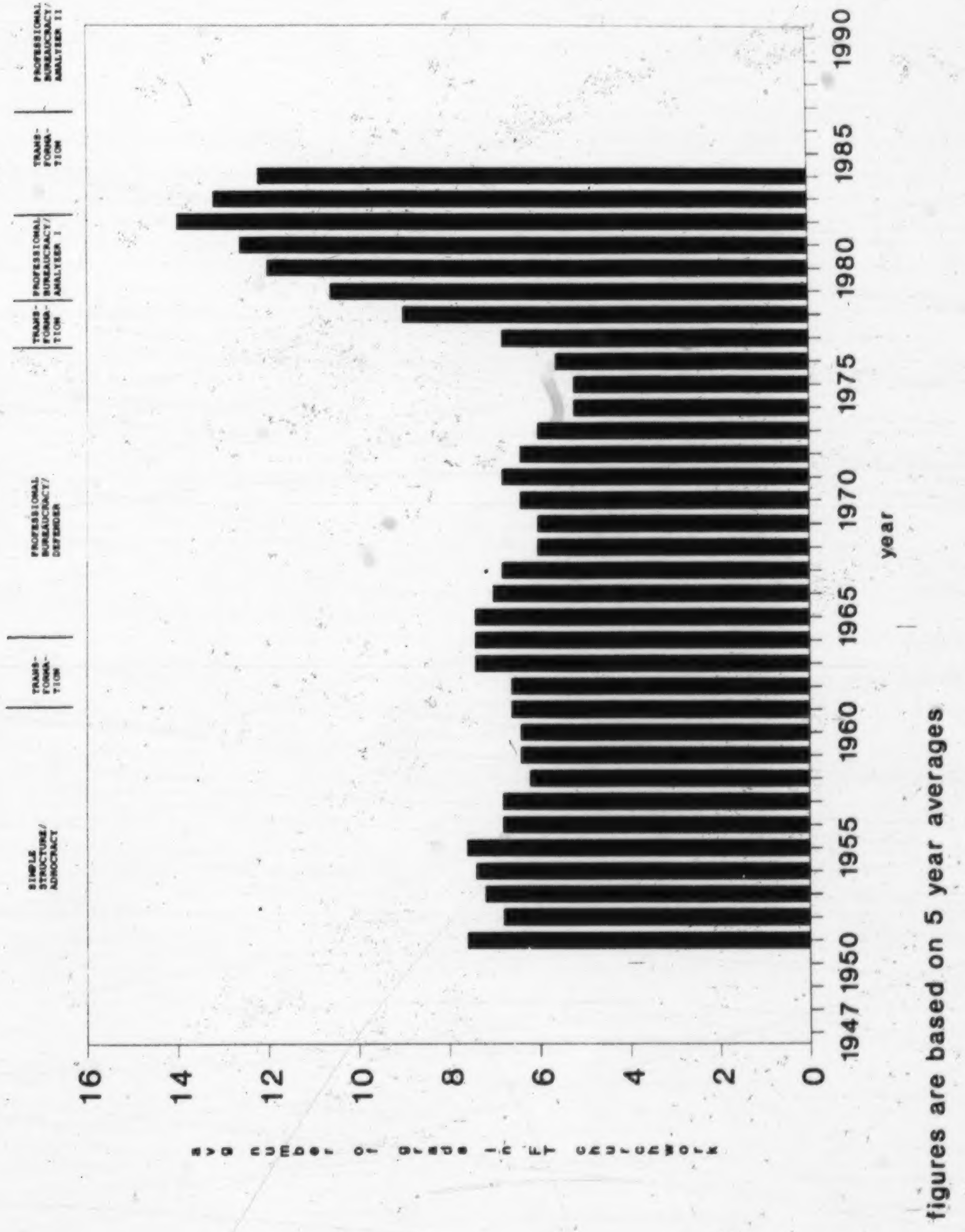


Figure 4.7
Academic specialization of average CMBC faculty member; 1948 to 1989

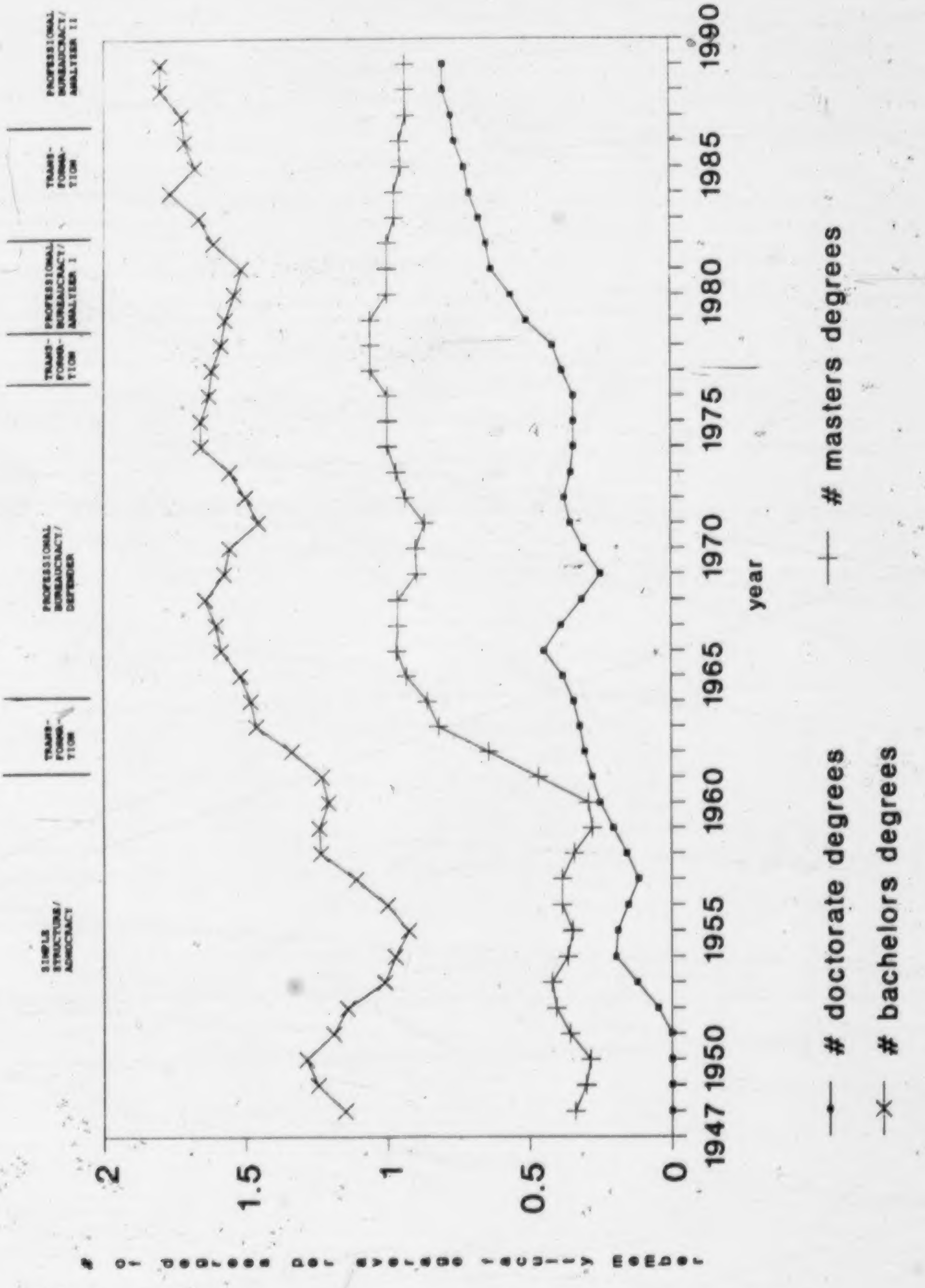


Figure 4.8 (next page) displays average percentages of CMCs total income which went to CMBCs operating expenses (data available for years 1957-1985). CMBCs share of CMCs economic pie more than doubled from just under 20% in 1957 to slightly over 40% in 1977. However, since 1977 CMBCs portion of CMCs total income has remained stable. Figure 4.9 highlights this break between the second and third periods of convergence even more clearly.

Figure 4.9 (two pages ahead) shows the average contribution (in 1981 dollars) per CMC member to CMBCs operating expenses. Contributions quintupled between 1960 and 1976 (from $4 per member to over $20 per member), and have remained just under twenty dollars per member ever since. Both Figures 4.8 and 4.9 also show that CMBCs financial situation was worsening just prior to 1977.

Figure 4.10 (three pages ahead) shows changes in average hours of instruction by academic area as a percentage of total hours of instruction listed in CMBCs catalogue (excluding music courses). The Figure shows that the proportion of Bible and Theology courses increased until the beginning of the second period of convergence, at which time they began to decrease. Obversely, the proportion of general liberal arts courses decreased throughout the first period of convergence, and then began to increase at the beginning of the second period. The beginning of the third period of convergence saw a marked increase in proportion of courses offered in Practical Theology.

Figure 4.8
Average percentage of Conference of Mennonites in Canada annual revenue allocated to CMBC operating expenses; 1958 to 1985

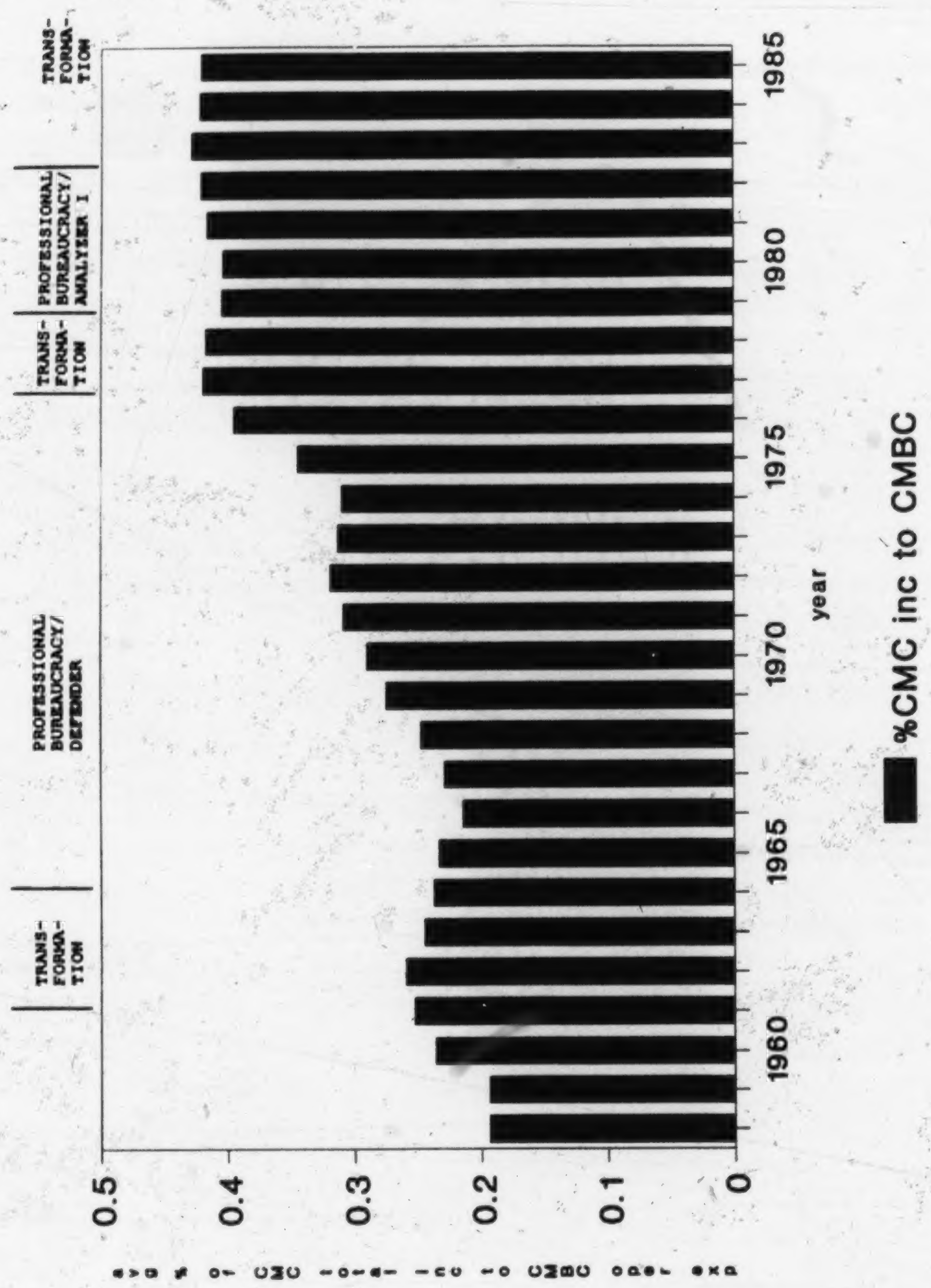


Figure 4.9
Average contribution (in 1981 dollars) per Conference of Mennonites in Canada member to CMBC operating expenses; 1948 to 1985

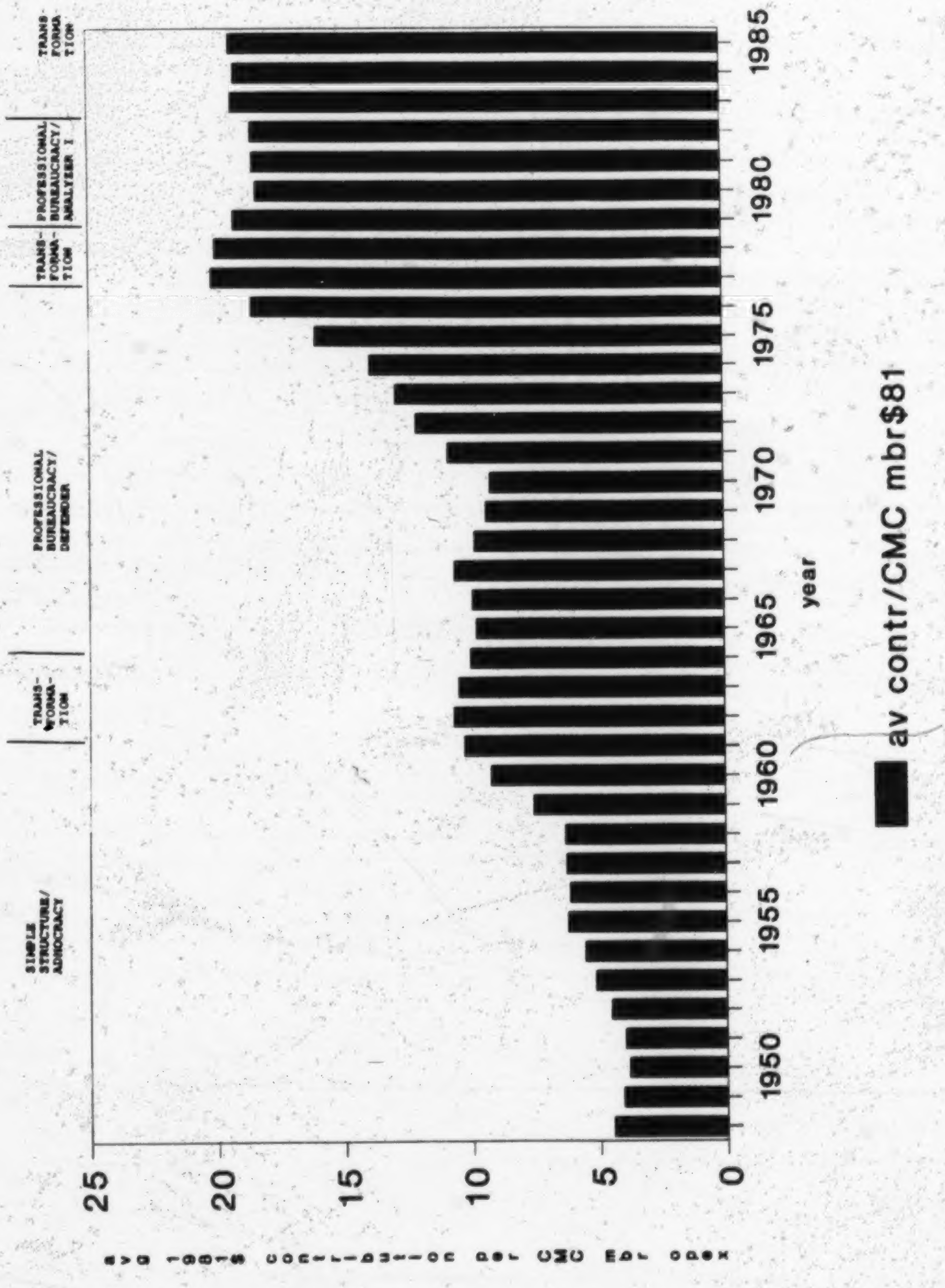


Figure 4.10
Average hours of instruction by academic area as a percentage of total hours of instruction listed in CMBCs catalogue; 1949 to 1989

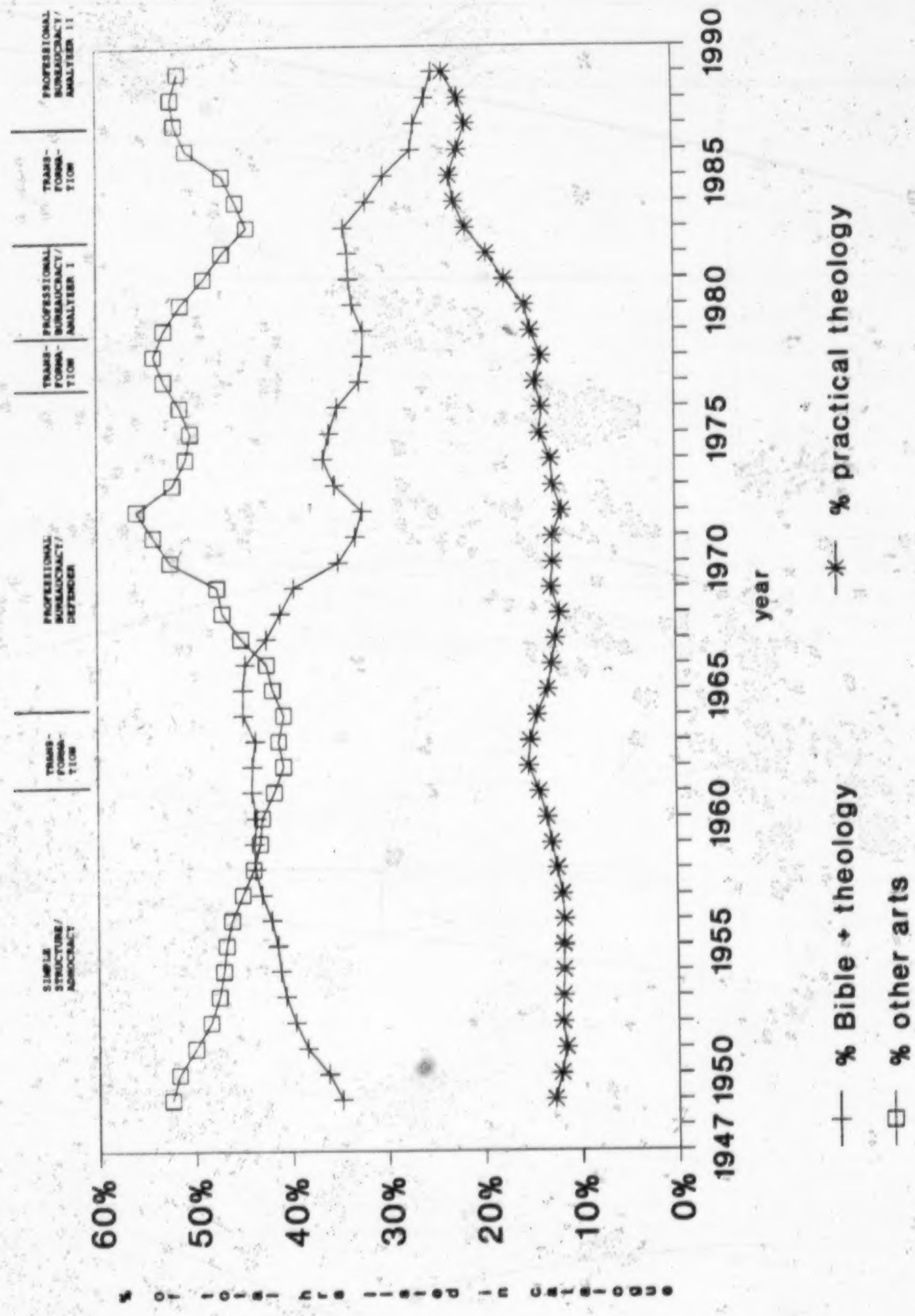


Figure 4.11 (next page) looks at the difference between the average length of service of CMBC board members versus faculty members. The Figure shows that during the first period of convergence the average board member had more years of service than the average faculty member. However, as of the first year of the second period of convergence, faculty members have had a longer association with CMBC than board members. This transition in longevity of service corresponds to a transition in power; the situation in the first period of convergence, where board members had more power in running CMBC than faculty, was reversed in the second period of convergence. Notice also that, for demographic reasons, since the early 1980s the difference in longevity of service between board and faculty members has remained relatively constant, and that this has been associated with a relative increase in power for board members.

Table 4.3 (two pages ahead) provides a summary of the preceding discussion. The Table identifies trends associated with each period of convergence which were described in the above time line figures.

Figure 4.11
Difference in average number of years of service of CMBC faculty members versus CMBC board members; 1948 to 1987

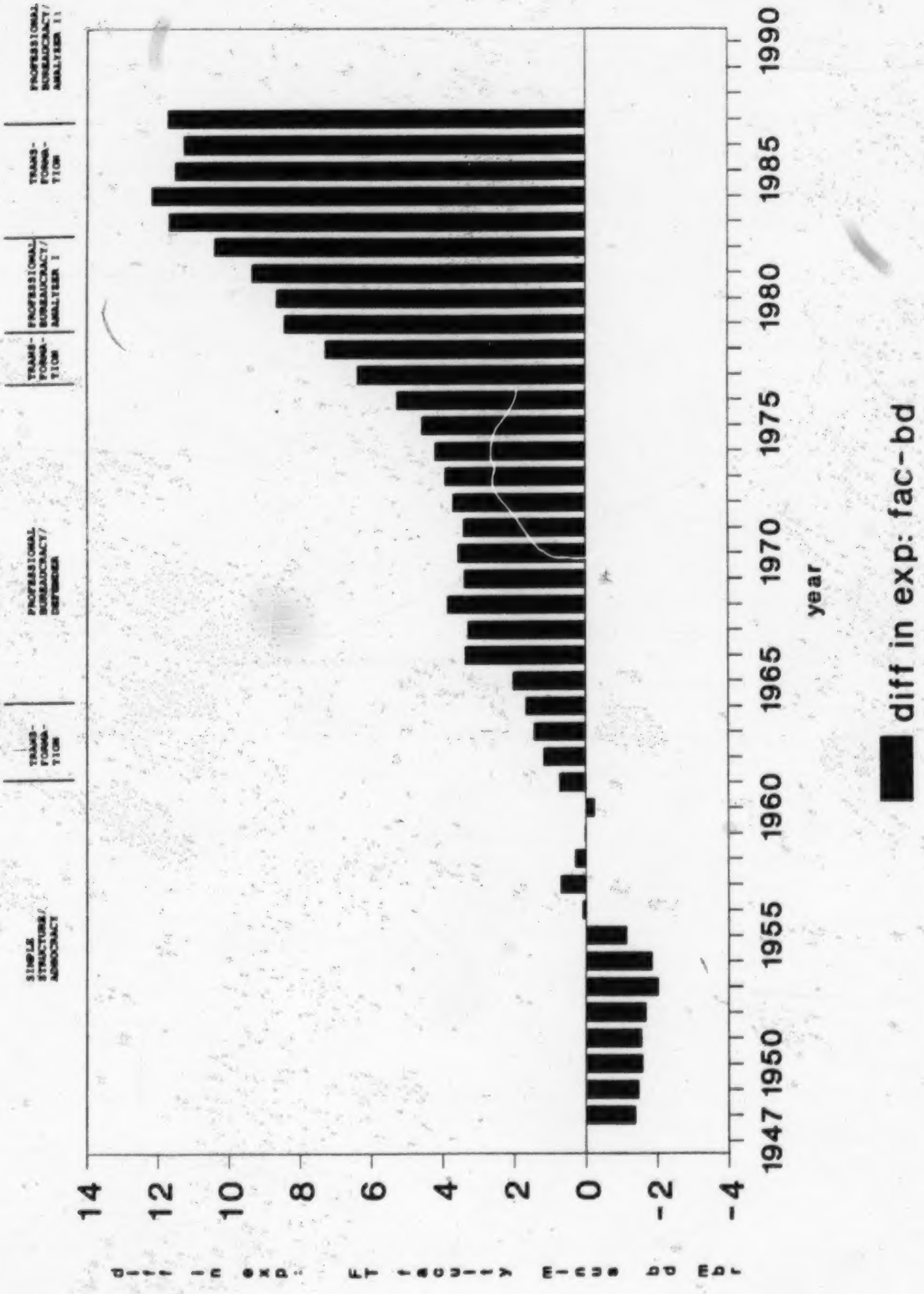


Table 4.3
Characteristics associated with periods of convergence

Characteristic	Period 1 (1950-60)	Period 2 (1965-76)	Periods 3+4 (1980-?)
enrollment	increase	stable	incr decr
no. new students	increase	stable	incr decr
percentage of students returning	decrease	increase	fluctuate
ave. no. of graduates entering full time churchwork annually	7	6	13
ave. percentage of graduates entering full time churchwork	66%	33%	33%
ave no. degrees per faculty member	1.5	3 (incr masters)	3.5 (incr doc)
percentage of CMC revenues to CMBC	?	increase	stable
financial support per CMC member	slowly increase	stable; incr in 1970s	stable
percentage courses:			
- Bible + Theology	increase	decrease	decrease
- Practical Theology	small increase	small decrease	increase
- general Arts	decrease	increase then fluctuate	fluctuate
length of service	board longer	faculty longer	faculty longer

Means and ends of convergence periods

The graphical data just presented, when coupled with the interview and archival data, provide strong confirmation of the periods of convergence established from interviews and board meeting minutes. Together, along with other archival data (e.g., annual reports, self-studies, faculty meeting minutes, and yearbooks and course catalogues), this information permitted the researcher to identify and describe characteristics associated with each of four periods of convergence at CMBC.

Table 4.4 provides an overview of the domain, structure and systems configuration of each period. Already, the names used to label each period of convergence, and the generic formal rationalities which they connote (as described by Mintzberg, 1983, and Miles and Snow, 1978) serve to differentiate between the various periods.

The overview provided in Table 4.4 is further elaborated in Tables 4.5 through 4.8 (on the following pages), which describe the fit between formal, cultural and political rationalities associated within each period of convergence. These tables identify values underlying key aspects of CMBCs formal rationality for each of CMBCs four periods of convergence. They also identify how these key aspects may be in the interests of certain groups.

Table 4.4
Overview of domain, structure and systems configuration characteristic of each period of convergence at CMBC

	Characteristic	1st convergence period 1950 to 1960 Simple structure/ adhocracy	2nd convergence period 1965 to 1976 Professional bureaucracy/ defender	3rd convergence period 1980 to 1981 Professional bureaucracy/ analyzer I	4th convergence period 1988 to 1990 Professional bureaucracy/ analyzer II
DOMAIN	purpose	to prepare full-time churchworkers	to provide theological education for lay church members	to provide theological education for lay church members AND to provide skills-oriented pre-professional education for full-time churchworkers	
	niche	CMCs official national Canadian post-secondary institution of higher education, existing alongside: i) non-CMC-related institutions of higher education (e.g., Canadian universities) ii) CMC-related regional less-academically-oriented Bible schools (e.g., Elim) iii) CMC-related Mennonite liberal arts college in the United States (Bethel College, Kansas); iv) a CMC-related seminary to train professional churchworkers (and i.e. AMBS) v) a CMC-related residential college (Conrad Grebel College, Ontario); and vi) CMC-related seminary courses offered in Ontario vii) a CMC-related college providing academic professional service education (Menno Simons College, Winnipeg)			
		CMBC is also in a unique position to help unify and enable CMC to develop/retain its Anabaptist distinctiveness			
	program	emphases on Bible, theology, practical theology, languages (especially German), music, and the liberal arts	primary emphasis more clearly on Bible and theology; other areas seen as subservient	primary emphasis on Bible and Theology, increasing emphasis on Practical Theology and Music	
STRUCTURE	formalization	low	high	high	high
	specializ'n/ division of labour	low; faculty members viewed as generalists	medium; esp post-1970 faculty members were increasingly special	high; in the late 1970s the average number of doctorate degrees per faculty member increased	
	centraliz'n/ distribution of authority	high run by board chairman all board members ordained (traditional authority) no limit to length of service for board members	low run by faculty (rational-legal authority) non-ordained members join board and a max. length of service introduced	low run mostly by faculty & somewhat by board, administrators and president (rational-legal authority)	low relative influence of administrators, and especially president, increased due to fund-raising involvement
	fundraising	board members' responsibility	administered centrally by CMC and CMBC staff		some by president, but most administered centrally
	format	academic year and areas patterned after bible department of the CMC-related USA liberal arts college accrediting CMBC	academic year and areas patterned after the University of Manitoba (UM), which also acts as the primary accrediting institution of CMBC		
		two degrees offered: emphasis on practically-oriented degree more than academic degree	one academicallly-oriented degree, emphasized, practical degree dropped	continued emphasis on one academically-oriented but with practically-oriented specializations added paranthetically	
SYSTEMS	control	top-down (board-run)	bottom-up (faculty-run)	mostly bottom-up, but with increased role for board members and administrators	decreasingly bottom up president notably increasing control
	appraisal	board-run	bureaucratically-run (by faculty)		
	information	informal	formal, with informal networks		formal, with president's informal constituency relations increasing

Table 4.5
Overview of formal, cultural and political rationalities associated with domain, structure and systems for the first period of convergence (1950 to 1960) at CMBC; Simple structure/adhocracy

	Characteristic	formal rationality	cultural rationality	political rationality
DOMAIN	purpose	to prepare full-time churchworkers	educational mission of church is manifest in training churchworkers	in the interests of those wishing to become or are seeking full-time churchworkers
	niche	CMCs official national PSE institution alongside existing schools like: i) non-CMC-related PSE schools ii) CMC-related regional less-academic Bible schools iii) CMC-related liberal arts college in USA	to be strong, CMC needs an institution of higher education to develop/retain its distinctive theology and teach skills for churchworkers a national (versus regional) school can help to unite and to sustain the CMC	in the interests of those who wield power in the CMC (consolidation) in the interests of CMC sub-groups who wish to use their boycott to influence the CMC constituency
	program	emphases on Bible, theology, practical theology, languages (especially German), music, and the liberal arts	church leaders should receive a well-rounded education	in the interests of: i) students wishing to receive a generalist education, ii) generalists wishing to teach at or lead CMBC, and iii) those who wish the German language to be retained
STRUCTURE	formalization	low	leaders should be trusted; rules are unnecessary	in the interests of those who have informal power they wish to retain
	specializ'n/ division of labour	low; faculty members viewed as generalists	flexible teaching assignments are valued	in the interests of generalists who wish to control or teach at CMBC
	centraliz'n/ distribution of authority	high run by board chairman all board members ordained (traditional authority) no limit to length of service for board members	some are called to be leaders called, ordained and elected leaders should be followed	in the interest of existing ordained leaders
	fundraising	responsibility of board members	trusted leaders can help to legitimize CMBC	in the interests of gifted fund-raisers and gifted funders
	format	academic year and areas patterned after bible department of the CMC-related USA liberal arts college accrediting CMBC 2 degrees offered; practically-oriented more emphasized than the academically-oriented	North American CMC-related churches should seize opportunities to cross-fertilize and fellowship students should be allowed to pursue studies in their area of interest	in the interests of USA Mennonite liberal arts colleges due to widened base of Mennonite scholars. CMBC gains status by associated in the interests of students and CMC-related service organizations
SYSTEMS	control	top-down (board-run)	trust your leaders	in interests of existing leaders
	appraisal	board-run	trust your leaders	in interests of existing leaders
	information	informal	no need for cumbersome information systems	in the interests of leaders well-connected in CMCs inner power circles

Table 4.6
Overview of formal, cultural and political rationalities associated with domain, structure and systems for the second period of convergence (1965 to 1976) at CMBC; Professional bureaucracy/defender

	Characteristic	formal rationality	cultural rationality	political rationality
DOMAIN	purpose	to provide theological education for lay church members	educational mission of church-school is to provide theological literacy for all of its members ("priesthood of all believers")	students interested in theology churches who desire theologically-literate members faculty members trained to instruct theology or Bible courses
	niche	CMCs official national PSE institution amidst new CMC-related schools, including: i) a CMC-related seminary to train professional churchworkers (ie AMBS) ii) a CMC-related residential college in Ontario (ie Conrad Grebel College)	stewardship: avoid duplicating programs of study already effectively being offered elsewhere	in the interests of CMBC supporters wishing CMBC to retain its competitive advantage of remaining the official school of CMC CMBCs narrowed focus is in the interests of the CMC-related seminary and residential college because they will now be in less direct competition with CMBC
		a national CMC-related school amidst regional schools, thereby a unique institution uniting the CMC	a national school helps to unify and sustain CMC	in the interests of those who wish to see CMC sustained (perhaps especially CMC leaders and employees)
	program	primary emphasis on Bible and theology; other areas seen as subservient	educational mission of church	theology and Bible scholars
STRUCTURE	formalization	high	justice requires consistency	in the interests of bureaucrats
	specializ'n/ division of labour	medium; especially post-1970 faculty members became increasingly specialised	maximise qualifications of faculty members CMBC students deserve the best	in the interests of students and highly-credentialed individuals who teach, or wish to, at CMBC
	centraliz'n/ distribution of authority	low run collegially by faculty (rational-legal authority) non-ordained members joined the board and maximum length of service on board was limited	priesthood of all believers renunciation of power (just like Jesus laid down power when crucified)	in interests of those in middle or bottom of hierarchy in the interests of non-ordained CMC members who desire input into CMBC
	fundraising	administered centrally by CMC/CMBC staff under unified budget	giving should be based on a process of community discernment instead of individual inclination	in the interests of persuasive CMC members, and CMC finance committee members
	format	one academically-oriented degree emphasized, and practical degree dropped academic year and areas patterned after UM, the primary accrediting institution of CMBC	stewardship: avoid duplication with practical programs offered in other CMC-related schools good to be recognized as teaching at same high standards as secular institutions of higher education	academically-oriented students academically-oriented faculty in the interests of recruiting students who want to cross-register courses with UM
SYSTEMS	control	bottom-up (faculty-run)	priesthood of believers	faculty
	appraisal	bureaucratically-run (by faculty)	fairness and justice	faculty (especially junior members)
	information	formal, but with informal networks	voice accorded to "conference people" and those with a long-term association with CMBC	persons well-connected in the CMBC network, especially faculty

Table 4.7
Overview of formal, cultural and political rationalities associated with domain, structure and systems for the third period of convergence (1980 to 1981) at CMBC; Professional bureaucracy/analyzer I

	Characteristic	formal rationality	cultural rationality	political rationality
DOMAIN	purpose	to provide theological education for lay church members AND to provide skills-oriented pre-professional education for full-time churchworkers	educational mission of a churchschool is to provide theological training for lay members and develop skills for churchwork	students interested in churchwork growing number of CMC churches searching for CMC-trained churchworkers to expand their professional staffs
	niche	CMCs official national PSE institution amidst new CMC-related schools, including: i) CMC-related seminary courses offered in Ontario ii) a CMC-related college providing academic professional service education (Menno Simons College, Winnipeg)	stewardship: avoid duplicating programs of study already effectively being offered elsewhere	in the interests of CMBC supporters wishing CMBC to retain its competitive advantage of remaining the official school of CMC insofar as CMBCs focus does not overlap with other schools, it is in all institutions' interests
		a national CMC-related school amidst regional schools, thereby a unique institution uniting the CMC	a national school helps to unify and sustain CMC	in the interests of those who wish to see CMC sustained (perhaps especially CMC leaders and employees)
	program	primary emphasis on Bible and Theology, increasing emphasis on Practical Theology and Music	students should be allowed to choose their areas of interest it is appropriate to provide churchworker training at CMBC	represents increased power for more practically-oriented faculty and board members
STRUCTURE	formalization	high	justice requires consistency	in the interests of bureaucrats
	specializ'n/ division of labour	high; in the late 1970s the average number of doctorate degrees per faculty member increased	maximise qualification of faculty members because "students deserve the best"	in the interests of students and highly-lettered individuals who teach, or wish to, at CMBC
	centraliz'n/ distribution of authority	low run mostly by faculty & somewhat by administrators, president & board (rational-legal authority)	priesthood of all believers	in the interests of those not atop the hierarchy
	fundraising	administered centrally by CMC/ CMBC staff under unified budget	giving should be based on a process of community discernment instead of individual inclination	in the interests of persuasive CMC members, and CMC finance committee members
	format	emphasis on one academic degree, with more practically-oriented specializations added paranthetically	CMBC provides higher education, and meets needs of CMC congregations	in the interests of CMC congregations and agencies seeking churchworkers
		academic year and areas patterned after UM, the primary accrediting institution of CMBC	good to be seen as teaching at same standards as secular higher education institutions	in the interests of recruiting students who want to cross-register courses at UM
SYSTEMS	control	mostly bottom-up, but with increased involvement by board and administrators	priesthood of all believers	especially faculty, administrators and board members improved
	appraisal	bureaucratically-run (by faculty)	fairness and justice	faculty members
	information	formal, but with informal networks	voice accorded to "conference people" and those with a long-term association with CMBC	persons well-connected in the CMBC network, especially faculty

Table 4.8
Overview of formal, cultural and political rationalities associated with domain, structure and systems for the fourth period of convergence (1988 to 1990) at CMBC; Professional bureaucracy/analyzer II

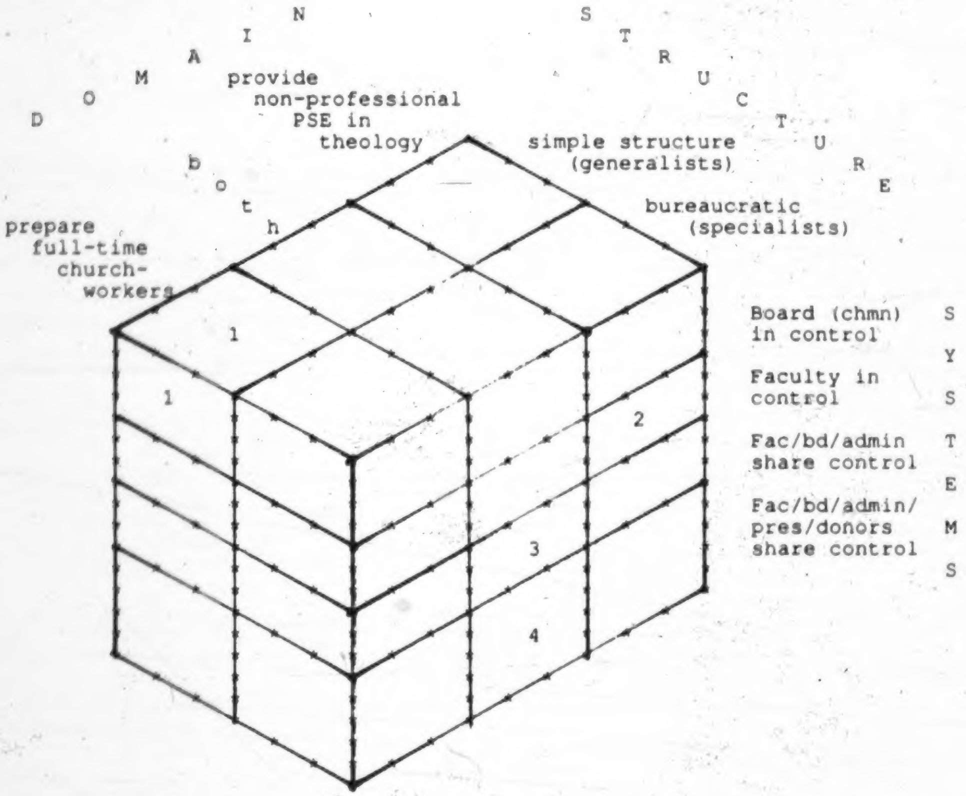
	Characteristic	formal rationality	cultural rationality	political rationality
DOMAIN	purpose	to provide theological education for lay church member AND to provide skills-oriented pre-professional education for full-time churchworkers	educational mission of a churchschool is to provide theological training for lay members and develop skills for churchwork	students interested in churchwork growing number of CMC churches searching for CMC-trained churchworkers to expand their their professional staffs
	niche	CMCs official national PSE institution amidst other CMC-related and non-CMC-related schools	stewardship: avoid duplicating programs of study already effectively being offered elsewhere	in the interests of CMBC supporters wishing CMBC to retain its competitive advantage of remaining the official school of CMC insofar as CMBCs focus does not overlap with other schools, it is in all institutions' interests
		a national CMC-related school amidst regional schools, thereby a unique institution uniting the CMC	a national school helps to unify and sustain CMC	in the interests of those who wish to see CMC sustained (perhaps especially CMC leaders and employees)
	program	primary emphasis on Bible and Theology, increasing emphasis on Practical Theology and Music	students should be allowed to choose their areas of interest it is appropriate to provide churchworker training at CMBC	represents increased power for more practically-oriented faculty and board members
STRUCTURE	formalization	high	justice requires consistency	in the interests of bureaucrats
	specializ'n/ division of labour	high: in the late 1970s the average number of doctorate degrees per faculty member increased	maximize qualification of faculty members because "students deserve the best"	in the interests of students and highly-lettered individuals who teach, or wish to, at CMBC
	centraliz'n distribution of authority	low relative influence president increased due to fundraising involvement	priesthood of all believers power accrues to those closest to the source of money	in the interests of those not atop the hierarchy possibly in the interests of president and donors
	fundraising	mostly administered centrally under CMCs unified budget plus some fundraising by president	community discernment plus accomodation for individual calling	possibly in the interests of those dependent on CMCs financial viability, and for president and donors
	format	emphasis on one academic degree, with more practically-oriented specializations added paranthetically academic year and areas patterned after UM, the primary accrediting institution of CMBC	CMBC provides higher education, and meets needs of CMC congregations good to be seen as teaching at same standards as secular higher education institutions	in the interests of CMC congregations and agencies seeking churchworkers in the interests of recruiting students who want to cross-register courses at UM
SYSTEMS	control	faculty members' control is lessening, president's control is increasing	control related to purse strings	in the interests of president and donors
	appraisal	bureaucratically-run (by faculty)	fairness and justice	faculty members
	information	formal, with president gaining increased access to key CMBC supporters	"conference people" and friends of CMBC have voice	in the interests of president

The simplified 3-dimensional diagram shown in Figure 4.12 (next page) represents a final attempt to pictorially capture the formal rationality characterizing each of CMBCs four periods of convergence. In the first period of convergence, there is an underlying logic in the "fit" between the purpose of CMBC becoming a CMC-supported post-secondary educational institution to prepare full-time churchworkers and the fact that it was run by CMC-leaders who were full-time churchworkers. Being chaired by the same individual and utilizing the same simple structure as used by its parent organization provided favorable conditions to establish a new institution and to win the support of the CMC constituency.

In the second period of convergence there was an underlying logic in CMBCs purpose to provide accredited non-professional post-secondary theological education and it being controlled by full-time academics. Because by this time CMBC had become well-established within the CMC constituency, adoption of a more bureaucratic structure (again consistent with newly-developing structures at CMC and those already in place at the University of Manitoba) seemed natural. An emphasis on formalization served to strengthen the control by faculty members.

There was also a rationale underpinning CMBCs domain, structures and systems in ~~its~~ third period of convergence. It was formally rational that a CMC school, which now stressed both the academic as well as the practical, should

Figure 4.12
The "fit" between domain, structure and systems for the periods of convergence at CMBC


DOMAIN
provide non-professional PSE in theology
both
prepare full-time church-workers
STRUCTURE
simple structure (generalists)
bureaucratic (specialists)
SYSTEMS
Board (chmn) in control
Faculty in control
Fac/bd/admin share control
Fac/bd/admin/ pres/donors share control
1
1
2
3
4

Legend

1 = first period of convergence (1950-60)
2 = second period of convergence (1965-76)
3 = third period of convergence (1980-81)
4 = fourth period of convergence (1988-90)

be controlled by persons representing academia and CMC members. Also, the increasing size of CMBC meant that CMBC faculty were no longer as able to be involved in all decision-making processes and some power was deferred to administrators. CMBCs bureaucratic structure remained familiar to both academia and CMC constituency.

The change between the third and fourth period of convergence was in systems alone. When CMBC members requested and received permission from CMC to actively solicit corporate and individual donors, it meant a possible increase in control for the president and for donors.

C. Identifying specific transformational change attempts

Having established and described different periods of convergence also in effect identified periods of transformation. These took place between the periods of convergence. As summarized above the time line in Figure 4.1, three of these were identified.

In order to identify dismissed transformational change attempts, the researcher relied on board meeting minutes and interviews to find change attempts which were discontinued but would have been transformational had they been implemented. This resulted in a list of about two dozen dismissed attempts at transformational change, of which eight were chosen for further study based on the following criteria: i) enough archival and interview/survey information was deemed available for analysis using the model presented in Chapter 2, ii) the attempts were relatively self-contained and precise (e.g., poorly-articulated criticisms made by constituency members who wanted change to take place were not included), and iii) the attempts represented several of the transformation types. The eight specific dismissed transformational change attempts which were analyzed are summarized underneath the time line in Figure 4.1, and need not be elaborated here.

Note that no attempts to transformationally change only the domain of CMBC (i.e., Type 3 changes) were found. Put differently, attempts to transformationally change CMBCs ends were always accompanied by transformational changes to its means.

Conclusion

This chapter presented data used to identify eleven transformational change attempts at CMBC. Each of CMBCs four periods of convergence were briefly described, and corresponding rationalities associated with those periods were presented. Having identified periods of convergence enabled the researcher to identify periods of transformation and also to identify dismissed transformational change attempts discussed in the archival materials.

CHAPTER 5

OPERATIONALIZATION AND MEASUREMENT

5.0 Overview

This chapter describes how the concepts were operationalized and measured to permit the testing of the hypotheses presented in chapter 2. The first part of the chapter describes how the rationalities underlying each of the transformational change attempts were studied using information gathered from archival sources, interviews, and questionnaires. The second part of the chapter describes various measures used to operationalize the enabling and triggering conditions associated with each of the transformational change attempts. Specifically, a crisis index and an opportunity index were created for each year since CMBCs founding.

5.1 Rationalities underlying change attempts

The rationality-bases associated with each of the transformational change attempts identified in chapter 4 were determined in two phases. The first phase involved a return to the archival records (e.g., reading all the minutes from the weekly faculty meetings in search of information directly pertaining to the identified change attempts, re-reading Board meeting minutes), and also a return to the people involved in the change attempts. This iterative process enabled the researcher to identify the key

FR, PR, and CR reasons favoring and opposing each of the eleven specific transformational change attempts.

Establishing these reasons provided the basis for the second phase, in which questionnaire instruments were designed to measure the relative importance of each reason for each change attempt. The questionnaire methodology was chosen because it saved time (both the researcher's and respondents') and it provided the opportunity to focus on each of the rationality types (it was awkward to study PR behavior using the interview methodology).

Three versions of questionnaires were designed for each transformational change attempt: one version for faculty members associated with the attempt, one for board members, and one for other interested individuals outside of CMBC. Original intentions to include students/alumni as a fourth response group (consistent with the literature review summarized in Table 4.1) were dropped because preliminary interviews with this group indicated they were poorly informed of the types of issues studied. Different questionnaires were developed for each of the eleven transformational change attempts.

Each of the questionnaires, one of which is shown in Appendix B, was four pages long and included a brief description of the change attempt being studied as well as some background contextual information. Questionnaires were distributed along with a cover letter from the researcher describing the purpose of the research, what to do if respondents desired further information, and a self-addressed stamped return envelope (see Appendix B).

Questions asking respondents about contextual conditions and about the effects of the change attempt on domain, structures and systems were fairly similar across all the questionnaires. Questions asking respondents about the specific reasons for opposing and favoring a specific change attempt were more unique to each event. The reasons provided on the questionnaire were based on archival documents and interviews.

Questionnaires were distributed to faculty members and board members according to the following criteria: 1) no respondent was to receive more than four survey instruments; 2) at least five respondents from the board and faculty should receive a survey instrument for each of the change attempts; 3) where possible, persons most intimately involved with the change should respond (this was difficult to achieve, given criterion #1 above and the longevity of several key faculty members at CMBC); 4) respondents should not receive more than one questionnaire of any similar dismissed transformational change attempts (i.e, only one of the three attempts to introduce high-school instruction to CMBC, and one of the two attempts to introduce liberal arts to CMBC). A minimum of three responses by faculty and board members per transformational change attempt were deemed adequate to "fill" a cell. A second mailing of questionnaires was prompted in those cases where less than three responses per change attempt had been received.

Questionnaires were also distributed to individuals who were not members on CMBCs board or faculty but who had some interest in a change attempt being considered (e.g., CMC leaders, change proponents from other organizations). Efforts were made to choose non-members who would be most knowledgeable about the change attempt being considered.

Data used to measure the rationality-bases of reasons favoring and opposing each of the eleven specific change attempts were drawn from the last two pages of the questionnaire. For each change attempt, respondents were asked to rate the importance (very important, important, somewhat important, other) of 12 reasons favoring change, and 12 reasons opposing change. Of these 12, each questionnaire included 2 reasons favoring and 2 opposing transformation based on each of the three rationality types. That is, each questionnaire contained: i) 2 formally rational (FR) reasons favoring and 2 FR reasons opposing each change attempt (e.g., "it might improve the over-all efficiency of CMBC"); ii) 2 politically rational (PR) reasons favoring and 2 PR reasons opposing each change attempt (e.g., "it could increase the status and/or role of board members" {respondents are board members}); and iii) 2 culturally rational (CR) reasons favoring and 2 CR reasons opposing each change attempt (e.g., "it would be good stewardship of the constituency's education dollar").

A prototype of the survey instrument was given to several people (both within and outside of CMBC) to test whether the questions and response categories were clear and answerable. The construct validity of the rationality-type ascribed to each of the reasons favoring and opposing each of the transformational change attempts was checked by familiarizing a research assistant knowledgeable about CMBC with each of the rationality types and having her rate each of the reasons as "FR", "PR", "CR", "AFR" or "other/more than one type". Each of the research assistant's classifications agreed with those designated by the researcher; on three reasons (two favoring change, one opposing change) the assistant indicated some uncertainty about her classification (in each case her tentative classifications were consistent with the researcher's), and these were re-worded to more clearly reflect the type of rationality they denoted.

A six step process was followed to prepare the rationality-based questionnaire responses for the analyses presented in chapter 6. The first step involved coding the responses. Responses of reasons favoring and opposing change attempts for each respondent were scored as follows:

"very important" = 5 points
"important" = 3 points
"somewhat important" = 1 point
"other"/"not important" = 0 points
or "not considered"

In the second step average rationality-based reasons favoring and opposing each change attempt were determined. Separate average scores for each of the three rationality types were calculated for each transformational change attempt for each respondent. Average scores were calculated for reasons favoring each change attempt, and average scores were calculated for reasons opposing each change attempt. For example, if a respondent indicated that one of the 2 CR reasons opposing a particular change attempt was "important" (3 points) and the other CR reason "very important" (5 points), then the average CR score opposing the transformational change attempt would be 4 (i.e., [3+5]/2).

In the third step standard deviations were calculated. After dividing the data into its three response groups (i.e., faculty, board and non-members), the average scores found in step 2 were used to determine standard deviations for each of the three rationality types by response group. The following formula was used:

$$\sqrt{\frac{\text{sum } (V_i - \text{AVG})^2}{n}}$$

where: n = number of responses of a given respondent group
AVG = average score of respondent group
V_i = the *ith* response

In the fourth step, standardized scores for each rationality-type for each respondent were calculated by dividing their scores (as calculated in step 2) by the appropriate standard deviation (step 3). Scores were standardized in order to compare the relative strength of the various reasons favoring and opposing change attempts by rationality type.

"Net" scores for each rationality type for each respondent were determined in the fifth step. These net scores were calculated by subtracting standardized scores opposing transformational change attempts from standardized scores favoring change attempts (i.e., as determined in step 4). For example, if a respondent's standardized PR score favoring a transformational change attempt was 0.7, and the PR score opposing the change was 0.9, then the respondent's "net" PR score would be -0.2 (i.e., 0.7-0.9)

The final step involved averaging scores found in steps 4 and 5. Averages were calculated according to respondent group, to change attempt type, and to whether transformational change attempts were implemented or dismissed.

5.2 Triggering and enabling conditions

Measures were created for each of the three triggering and enabling conditions identified in Figure 2.1: crisis, opportunity, and capacity.

The researcher created indices for opportunities and crises which measured their level and intensity throughout CMBCs history. In order to reduce the possible bias and artifactual nature of the indices, the researcher attempted to create these indices before and independently from the identification of specific transformational change attempts and periods of convergence and transformation. Information to build the indices was gathered mostly by relying on documents and archival records like CMBC Calendars (changes in composition of Board and faculty members), reports at CMC annual conferences (financial reports, student enrollment figures), in-house documents (e.g., "where-are-they-now?" reports on graduates, self-studies), and board and faculty meeting minutes. These information sources were supplemented by interviews.

By their nature, measures for theoretical and technical capacity could only be created after specific transformational attempts had been identified. In addition to archival and interview information, capacity was also measured using data from the questionnaire described in section 5.1 above

A. A crisis index

Four basic performance criteria were identified as key for evaluating CMBCs performance and thereby determine the intensity of crisis facing CMBC. These criteria were determined by looking at standards used in other small private colleges (i.e., as identified in Table 4.1) and by identifying criteria repeatedly found in CMBCs annual reports and mentioned in interviews. While performance standards other than those included here were used at different times during CMBCs history, it was felt that the four listed here were the most important overall:

1) student enrollment, including

- percentage of students returning for second or third year of study;

2) constituency relations, including

- relations with key external groups (e.g., CMC constituency, the University of Manitoba, the Associated Mennonite Biblical Seminaries (AMBS) which is the primary CMC-related seminary, and CMC-related high schools and Bible schools),

- number and percentage of graduates entering full-time churchwork;

3) financial viability, including

- financial support from CMC members,

- percentage of CMC moneys allocated to CMBC operations,

- social economic conditions (change in Canada's GDP);

4) status as an institution of higher education, for example

- loss of accreditation status with the University of Manitoba.

The discussion below describes in some detail how the composite "crisis index" (shown in Figure 5.1) was created for CMBC. Generally, the first step involved finding measures to create crisis sub-indices for each of the four basic performance criteria listed above. The researcher visually inspected and coded the distribution of each individual measure in such a way as to highlight years in which crises were evident. A similar procedure was followed when creating the composite index based on the sub-indices. In this way, 27 years (64%) in the composite crisis index lie below the median crisis score, and 15 years (36%) lie above it.

The researcher used various weighting formulas to create the sub-indices and the composite index. These weighting formulas were established guided by the following considerations: i) the centrality of a given measure for capturing the larger concept; ii) the variation in the raw scores of the sub-measures (e.g., the upper limits and range of fluctuations observed); and iii) the amount of duplication/overlap between various sub-measures.

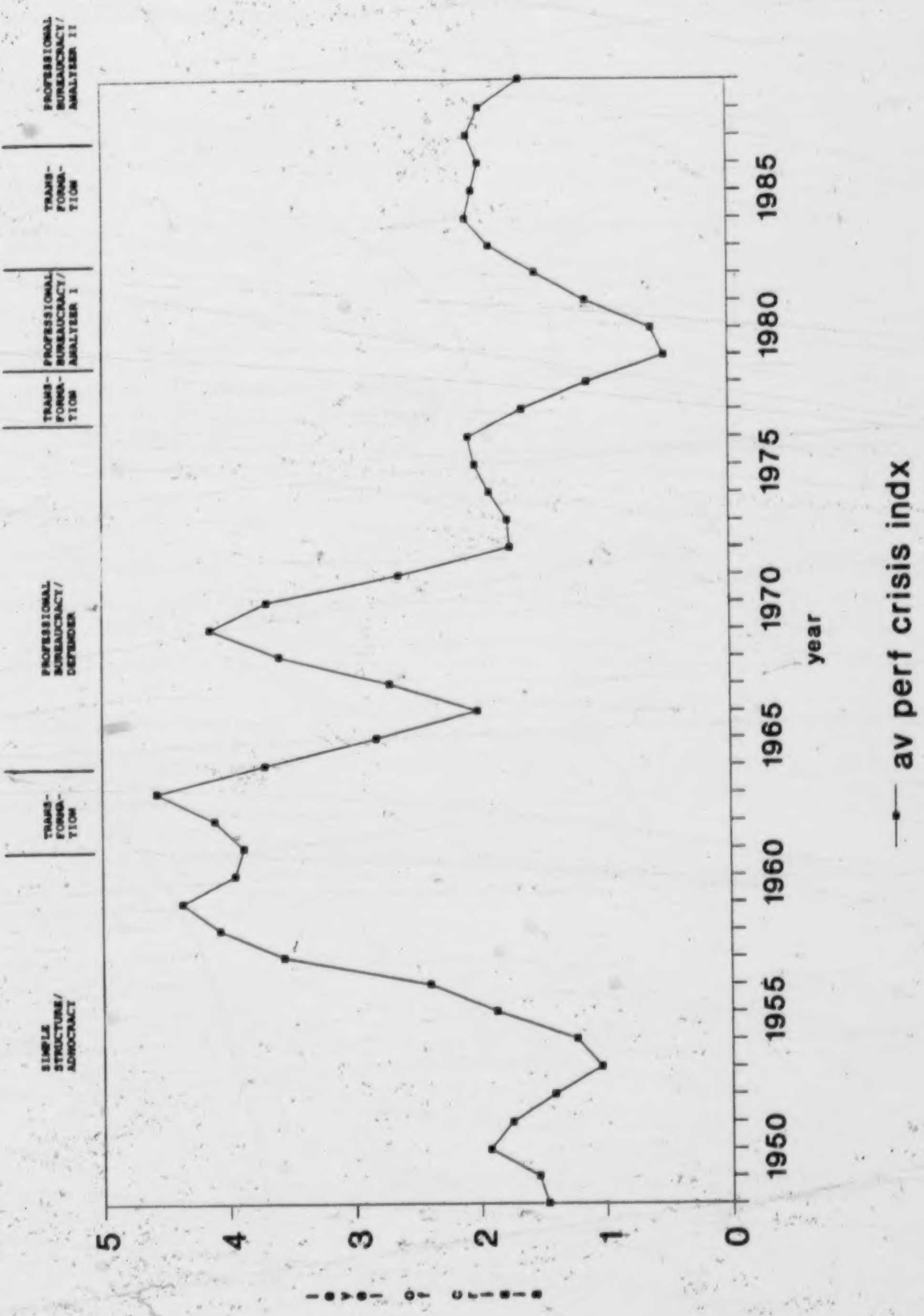
Figure 5.1 shows how the intensity of performance-related crises facing CMBC has changed over time. It shows how crisis intensity was especially strong in the late 1950s and early 1960s, and again in the late 1960s.

1) enrollment crisis sub-index

The following three measures and scoring schemes were utilized in order to create an enrollment crisis sub-index.

The first measure determined decrease in enrollment from the average enrollment of the previous three years. Five points were scored each year in which the average percentage change per year in enrollment in the previous three years decreased by greater than twenty percent; four

Figure 5.1
Composite crisis index for CMBC; 1948 to 1989



points were scored each year in which the decrease was between fifteen and twenty percent; three points were scored each year in which the decrease was between ten and fifteen percent; two points were scored each year in which the decrease was between five and ten percent; one point was scored each year in which the decrease was between zero and five percent.

The second measure determined the percentage of non-graduating students returning to CMBC. Two points were scored each year in which the average percentage of non-graduating students returning to CMBC decreased. One point was added for each consecutive year of decrease. An additional point was added for decreases which were five percentage points or greater. An additional point was added in years where less than half the potential students returned.

The third measure determined the number of new students entering CMBC. One point was scored during each year in which the number of new students attending CMBC dropped from the previous year. One point was added for each consecutive year of decreasing numbers of new students.

The enrollment crisis sub-index was created by simply aggregating the scores from the above 3 measures.

2) constituency relations crisis sub-index

The following two measures and scoring schemes were utilized in order to create a constituency relations crisis sub-index.

The first measure examined minutes of meetings pertinent to CMBC. The "mood" of constituency relations as expressed in board meeting minutes, CMC delegate annual meetings, and from interviews was rated on a scale of zero to five for each year (five designating poor constituency relations).

The second measure determined the number and percentage of graduates entering full-time churchwork. It was felt that a fewer graduates entering full-time churchwork would serve to weaken constituency relations, and vice versa. One point was scored for each year in which the average percentage or the number of graduates entering full-time churchwork decreased. An additional point was added for each consecutive year of decrease.

The constituency relations crisis sub-index was created using the following weighting formula: [(first measure scores) x 2.00] + [(second measure scores) x 1.00] = constituency relations performance crisis index.

3) finance crisis sub-index

The following four measures and scoring schemes were utilized in order to create a finance crisis sub-index.

First, changes in Canada's Gross Domestic Product (GDP) were determined. It was felt that a negative or low growth rates in GDP would contribute to the level of financial crisis facing CMBC. The average percentage change in Canada's GDP was scored according to the following scale: 5 points for each year in which there was a negative score, 4 points for years with growth between 0.0 and 0.5 percent, 3 points for years with growth between 0.5 and 1.0 percent, and 1 point for years with growth between 1.0 and 1.5 percent.

The second measure determined the level of financial contributions made by CMC members. It was felt that decreasing contributions by CMC members would contribute to the level of financial crisis facing CMBC. One point was scored for each year in which the average "real" contributions to CMBCs operating budget per CMC member decreased. An additional point was added for each consecutive year of decreasing contributions.

The third measure determined the proportion of CMCs budget which was allocated to CMBCs operating expenses. It was felt that decreasing proportions would contribute to the level of financial crisis facing CMBC. The average percentage of CMCs total income allocated to CMBCs operating budget was scored as follows: one point for each year of decreasing allocation with an additional point added for each consecutive year of decreasing allocations (data available only for years 1958 to 1985).

The fourth measure examined the board meeting minutes. The level of concern expressed in board minutes about CMBCs financial situation was rated on a scale from one to five (five designating great concern).

The financial performance crisis sub-index was created using the following weighting formula: [(first measure scores) x 1.00] + [(second measure scores) x 1.00] + [(third measure scores) x 1.00]* + [(fourth measure scores) x 1.50] = financial crisis sub-index. (*Note that for the years between 1947 to 1958, when no data for the third measure were available, the following formula was used: [(first measure scores) x 1.00] + [(second measure scores) x 2.00] + [(fourth measure scores) x 1.50] = financial crisis sub-index).

4) academic status crisis sub-index

Only one measure was used in order to create the academic status crisis sub-index. Points were assigned by the researcher on a scale of zero to five (five being most threatening) for each year according to how threatened CMBC was due to events taking place in its external environment. These ratings were based on archival and interview sources. Points were scored when, for example, when CMBC temporarily lost accreditation status with the University of Manitoba in the late 1950s, and when new CMC-related post-secondary educational institutions were founded.

The composite performance crisis index (i.e., as is shown in Figure 5.1), based on the four above-described sub-indices, was created using the following weighting formula: [(enrollment crisis sub-index) x 1.00] + [(constituency relations crisis sub-index) x 0.75] + [(financial crisis sub-index) x 0.30] + [(academic status crisis sub-index) x 1.50] = composite performance crisis index. The weightings were chosen primarily to equalize the variability of the raw scores within each of the sub-measures.

B. An opportunity index

Various measures were used to develop a sub-index for each of the three components of opportunities identified in section 2.3 (i.e., personnel, related organizations, and performance) which were then combined to form a composite opportunities index for CMBC. The methodology in assigning scores to individual measures and weighing them to create indices was analogous to that used in creating the crisis index. The opportunities index was based on:

1) personnel-related opportunities, including
    - turnover in president's office, and other officers
    - turnover in board chairmanship,
    - length of service of board and faculty members,
2) changes by other organizations impacting CMBCs domain,
3) performance-related opportunities, including
    - enrollment
    - financial conditions
    - constituency relations
    - academic status/integrity of school

- relationship to accrediting institutions
- academic qualifications of faculty members.

Figure 5.2 (next page) shows how the level of opportunities facing CMBC has changed over time. The late 1960s, and the late 1970s to early 1980s, were years where CMBC enjoyed especially many opportunities.

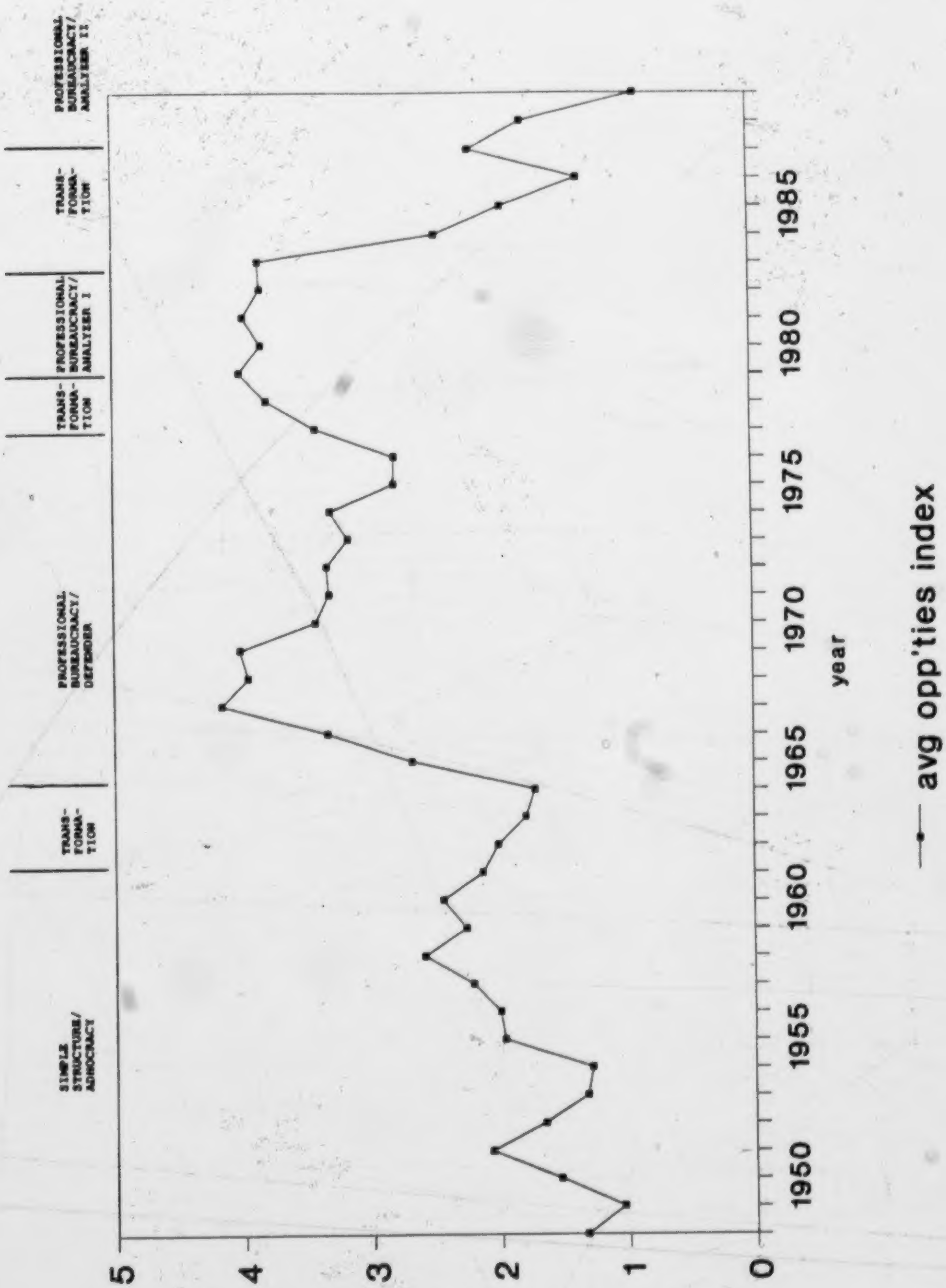
1) personnel-related opportunities sub-index

The following five measures and scoring schemes were utilized in order to create a personnel-related opportunities sub-index.

The first measure examined the changes in CMBCs presidential office. It was felt that a change in president may be accompanied with an increased openness to transformational change. Three levels of opportunity points were scored depending on the nature of the change in President: one point was scored in years with interim Presidents, four points were scored in years where a new president drawn from CMBCs existing faculty was appointed, and five points were scored in years in which a new president had joined CMBC from outside its faculty.

The second measure determined the changes in CMBCs board chairmanship. It was felt that changes in CMBCs board chairmanship may be associated with an increased openness to transformational change. Two levels of points were scored depending on the nature of change in chairman: four points were scored when an existing chairman was replaced by a

Figure 5.2
Composite opportunities index for CMBC; 1948 to 1989



former CMBC chairman; five points were scored when an existing chairman was replaced by a new chairman.

The third measure determined the changes in the average number of years served by CMBCs board members. It was felt that high turnover in the board would contribute to the level of opportunities facing CMBC. Three points were scored for each year in which the average tenure of board members had decreased for three consecutive years (four consecutive years scored four points, five consecutive years scored five points).

The fourth measure determined the changes in the average number of years served by CMBCs faculty members. It was felt that high turnover in the faculty would contribute to the level of opportunities facing CMBC. Three points were scored each year the average tenure of faculty members was decreasing for three consecutive years.

The fifth measure examined turnover in academic officers (other than president). Again, change was expected to contribute to the level of opportunities facing CMBC. Three points were scored for each year in which there was a personnel change in Dean (1 point for interim changes). One point was scored for each year personnel change occurred in the office of business manager/registrar/treasurer.

The personnel opportunities sub-index was created using the following weighting formula: (first measure scores) x 1.00] + [(second measure scores) x 0.75] + [(third measure scores) x 0.25] + [(fourth measure scores) x 0.25] + [(fifth measure scores) x 0.75] = personnel opportunities sub-index.

2) domain opportunities sub-index

Sometimes other organizations undertook actions which presented an opportunity for CMBCs domain to be re-defined and/or enlarged. One point was scored for each year in which organizations in CMBCs external environment undertook such actions. Two points were scored when these actions occurred within CMC, CMBCs parent organization. The specific actions coded were drawn from archival documents and interviews.

3) performance-related opportunities sub-index

The following four measures and scoring schemes were utilized in order to create a performance-related opportunities sub-index.

The first measure determined the changes in CMBCs enrollment. It was felt that increasing enrollment would contribute to the level of opportunities facing CMBC. One point was scored each year during which CMBCs enrollment increase was greater than ten percent more than the previous three years' average enrollment, three points were scored if the increase was greater than twenty percent, four points were scored if the increase was greater than thirty percent, and five points were scored if the increase was greater than forty percent.

The second set of measures determined changes in CMBCs financial situation. It was felt that increases in contributions to CMBC via its CMC constituency members would heighten the level of opportunities facing CMBC. One point was scored each year during which contributions (in 1981 dollars) to CMBC per average CMC member had increased for three consecutive years. Two points were scored after four consecutive years of increase, three points were scored after five years, four points after six years, and five points after seven or more consecutive years in which contributions to CMBC per average CMC member increase.

Also, it was felt that a thriving Canadian economy would contribute to the level of opportunities facing CMBC. One point was scored for each year in which the aggregated growth in Canada's GDP over the previous three years was ten percent or greater. An additional point was scored for each additional consecutive year during which the aggregated growth in Canada's GDP over the previous three years was ten or more percent.

The third measure determined constituency relations. It was felt that good constituency relations would contribute to the level of opportunities facing CMBC, and be expressed in the number of graduate students entering full-time churchwork. Three points were allocated each year the number or percentage of CMBC graduates entering full-time churchwork had increased for three consecutive years (four points for four years of increase, five points for five years).

The fourth set of measures determined the academic status/integrity of CMBC. It was felt that improved status would contribute to the level of opportunities facing CMBC. Three points were scored each year in which CMBC substantially improved its relationship with the University of Manitoba. Five points were scored the year CMBC became an accredited Approved Teaching Center of the University of Manitoba.

Also, it was felt that improved academic credentials of faculty members would contribute to the level of opportunities facing CMBC. One point was scored during each year in which the average number of Masters degrees per faculty member increased considerably (1960-66) (cf. Figure 4.7). Two points were scored during each year in which the average number of doctorate degrees per faculty member increased appreciably (1958-60, 1965-66, 1970-71, and 1979-81), and one point during each year which saw a moderate increase in number of doctorates per member (1982-86). (Note: Although these latter measures could also have been incorporated in the personnel opportunities index, they were used here because the upgrading was more by existing faculty members than by hiring new faculty.)

The performance-related opportunities sub-index was created using the following weighting formula: [(first measures scores) x 1.00] + [(second measure scores) x 0.80]

+ [(third measure scores) x 0.70] + [(fourth measure scores) x 0.60] = performance-related opportunities sub-index.

The composite opportunities index (i.e, as is shown in Figure 5.2) based on the three above-described sub-indices, was created using the following weighting formula: [(personnel-related opportunities sub-index) x 0.50] + [(domain opportunities sub-index) x 0.40] + [(performance-related opportunities sub-index) x 0.30] = opportunities index. Again, the weightings were chosen primarily to equalize the variability of the raw scores within each of the sub-measures.

C. Capacity measures

In addition to measuring CMBCs capacity to undergo specific transformational change attempts based on archival resources and interviews, the researcher also included questions on the questionnaire described in section 5.1.

First, respondents were asked to indicate the ease with which each transformational change attempt could be implemented (see part A of the sample questionnaire provided in Appendix B). Respondents who indicated that, at the time a given transformational changes was being attempted, workable structures were already available or would be easy to design were coded as perceiving CMBC to have the capacity to implement the transformational change. Respondents who indicated that a workable structure would be difficult to design or probably or definitely could not be designed were coded as perceiving CMBC not to have the capacity necessary to implement the transformational change.

Additional questions examining CMBCs capacity to implement a given transformational change attempts were included in Part D of the questionnaire. Here respondents were asked to what degree technical capacity (e.g., "CMBC possessed the know-how to go through with it") and theoretical (e.g., "a workable model was available") capacity favored or opposed a given transformational change attempt. Responses to these questions were coded and standardized scores created following the same six step procedure described in section 5.1 for analyzing rationality scores of respondents. In this way, these responses could be used to determine to what degree having/not having the capacity to implement specific changes encouraged/discouraged respondents from implementing specific transformational change attempts.

Conclusion

This chapter described the operationalization and measurement utilized to permit testing the hypotheses presented in chapter 2. Measures for the rationalities underlying and for the enabling and triggering conditions associated with each of the various change attempts were developed and described.

CHAPTER 6

RESEARCH FINDINGS AND ANALYSIS

6.0 Overview

In this chapter the six hypotheses presented in section 2.4 are tested utilizing the data gathered as described in chapters 3 through 5. Each hypothesis is discussed both in terms of the more qualitative data obtained from interviews and archives, as well as the more quantitative data obtained from questionnaire respondents. A brief summary at the end of the chapter reviews the results and summarizes key findings of this study. Implications of this analysis are discussed in chapter 7.

Hypothesis 1

Attempts to transformationally change both an organization's ends as well as its means (i.e., Type 2 changes) will face greater resistance from organizational members than attempts to change means only (i.e., Type 1 changes) or ends only (i.e., Type 3 changes).

This hypothesis is based on the notion that the more encompassing a given transformational change attempt is, the more difficult it will be to implement. If the hypothesis were true, it would be expected that the level of rationality-based opposition to change attempts would be greater for Type 2 transformational change attempts than for other types. It should be noted at the outset of this discussion that, because no Type 3 change attempts were found at CMBC, this part of the hypothesis was difficult to test.

From data collected during interviews and found in archival materials, the researcher observed that two lines of resistance seemed to characterize efforts to dismiss transformational change attempts. The first line of resistance focused on the formally rational (FR) merit of a change attempt, but also had a politically rational (PR) component. This line of resistance involved identifying not only whether a workable model existed for a given change attempt, but also whether the change attempt was consistent with CMBCs mandate as a Conference of Mennonites in Canada (CMC) institution. If opponents to a given transformational change attempt demonstrated that the attempt was FnR for a majority of CMC constituency members, then this first line of defense was adequate to result in the dismissal of a change attempt. On this basis three of the four attempted Type 1 changes were dismissed. In each of these three attempts, all of which were by Manitoba-based Mennonites with plans to share the CMBC campus with their own institution, the change was FR only for a relatively small interest group within the CMC constituency. This first line of defense was also adequate to dismiss two of the seven Type 2 changes. For example, in the early 1960s resources were lacking to permit CMBC to seriously entertain becoming a liberal arts college.

However, for the other three dismissed Type 2 transformational change attempts, a second and ostensibly more insurmountable line of resistance was utilized. If the first line of resistance was unsuccessful to dismiss a given transformational change attempt (e.g., when change attempts were shown to be viable), change opponents tended to argue that implementation of the attempt could be achieved only by sacrificing beneficial culturally rational (CR) characteristics associated with the existing means-ends configuration.

Perhaps this is best illustrated by the change attempt made in the early 1980s when a group of well-to-do Mennonites formed the Friends of Higher Learning (FHL) and offered approximately $12 million for CMBC to move towards becoming a liberal arts college. Surveys done in the constituency showed considerable interest in the proposal, some CMBC members (including the then recently appointed President) believed the idea had merit, and models for such a transformation were developed and proposed. Having thus weakened arguments that the change attempt was not viable nor desired by the constituency, opposition to this change attempt became based on the fear that becoming a liberal arts college would undercut two core values at CMBC. First, due to the increased size of the student body which would be associated with becoming a liberal arts college, the argument was made that the sense of "community" which had always been a central component of CMBC students' experience and education would be destroyed. Second, due to the expanded course offerings and their attractiveness to students, the primary emphasis on Bible and theology instruction at CMBC would be eroded until eventually few students would enroll in more than a few required Bible/theology courses and only two or three faculty positions in this area would remain. Furthermore, becoming a liberal arts college was PnR for CMBC members because it could weaken the role of the CMC constituency and its members on the CMBC board (not to mention the role of existing faculty members).

This discussion supports the hypothesis insofar as it shows that the second and more difficult to overcome line of resistance was utilized more frequently for Type 2 than Type 1 changes. In only one Type 1 change attempt (the one which was eventually implemented) was the second line of resistance brought into play.

The questionnaire data also lend support to the hypothesis (see Table 6.1). For both board and faculty members, opposition based on the three rationality types was greater for Type 2 change attempts than Type 1 attempts. That is, when questionnaire respondents were asked how important specific rationality-based reasons were for opposing a given transformational change attempt, the reasons opposing Type 2 changes were rated as more important that reasons opposing Type 1 changes.

Table 6.1
Rationality scores opposing change attempts by
i) change type, and ii) respondent group.

Basis of reason	opposition to Type 1 changes: Fac	Bd	Non-mbr	opposition to Type 2 changes: Fac	Bd	Non-mbr	Differences (Type 2) - (Type 1) Fac	Bd	Non-mbr
rationalities									
- formal	0.9	0.6	1.1	1.3	1.6	0.9	**+0.4**	**+1.0**	**-0.2**
- political	0.6	0.3	0.5	1.1	0.8	0.5	**+0.5**	**+0.5**	**0.0**
- cultural	1.1	1.2	1.2	1.2	1.5	0.9	**+0.1**	**+0.3**	**-0.3**

note: figures shown in **bold face** highlight key data referred to in text

The right-most columns of the Table show how the differences in the means for each of the three rationality scores indicate that opposition to Type 2 change attempts was greater than opposition to Type 1 change attempts. It seems that Type 2 change attempts were especially more politically nonrational versus Type 1 attempts.

The results for respondents who were not members at CMBC were opposite to those of members. Non-members' responses suggested that Type 1 changes were somewhat more difficult to implement than Type 2 changes. Perhaps this is partly attributable to non-members being less intimately involved with and therefore feeling less ownership of existing means-ends configurations. Compared to organizational members, persons with an arms-length relationship to an organization may have found it relatively easy to discard an existing means-ends configuration and replace it with a new and ostensibly improved version.

Because CMBC did not undergo any Type 3 change attempts, it was difficult to compare the difficulty of implementing Type 3 attempts vis-a-vis the others. In order to accomplish this latter task, a somewhat makeshift test was developed in which the researcher analyzed the relative strength of reasons opposing transformational change attempts according to the respondent-perceived change types as determined from their questionnaire responses. This created a situation where four types of change attempts were identified; alongside Type 1 (means only), Type 2 (means and ends), and Type 3 (ends only) change attempts as discussed in section 2.1 was added Type 0 (which denotes convergent change attempts). If hypothesis 1 were true, it was expected that the reasons opposing perceived Type 2 transformational change attempts would be stronger than the reasons opposing perceived Type 1 or 3 change attempts, which in turn would be greater than those opposing convergent change attempts. While this methodology is not as desirable as had responses from actual change attempts across the various change types been available, this test enables some analysis of Type 3 transformational change attempts utilizing the data at hand.

The results shown in Table 6.2 (see next page) are as predicted by hypothesis 1. As hypothesized, perceived Type 2 transformational change attempts were rated as the most difficult to implement. Type 1 attempts were the second most difficult, and Type 3 the third most difficult. Perceived convergent changes (Type 0) were the least difficult to implement.

In sum, the data lend strong support to the hypothesis that Type 2 changes face the stiffest resistance.

Table 6.2
Perceived transformational change attempt types versus average scores of reasons opposing change

Type of change attempt perceived	average rationality score opposing change attempt*	ranking (most difficult to least difficult)
Type 2 (means and ends)	1.2	1
Type 1 (means only)	1.0	2
Type 3 (ends only)	0.8	3
Type 0 (convergent changes)	0.5	4

*Note: the scores shown are the average scores of the three rationality types for the three respondent groups for dismissed change attempts (no implemented change attempt scores were included because these were not available for each respondent group for each perceived type of change attempt). Note also that the ranking would not have changed had non-member respondents' scores not been included.

Hypothesis 2

Transformational change attempts of the greatest historical consequence (i.e., Type 2 changes) which are primarily supported by formally nonrational culturally rational (i.e., alternative cultural rationality (ACR)) based reasons are more likely to be implemented than attempts which are not.

This hypothesis is drawn from Weber's assertion that changes of the greatest historical consequence are based primarily on (formally nonrational) cultural rationality. For Weber, it is cultural rationality alone which has the capability of suppressing the various existing rationalities.

Interview and archival data lend support to this hypothesis. It is striking that the transformational change which was of the greatest historical consequence for CMBC was also the one which was most-articulately based primarily on values. When, in the early 1960s, CMBC changed from being a full-time churchworker preparation school to being a university-accredited non-professional college providing biblical-theological training, the rationale for doing so was presented in a later-published document which makes a primarily value-based appeal for support. That document, which outlines a basic educational philosophy for CMBC, was written primarily to gain understanding and "moral support" (Janzen, 1966:3).

Although both the implemented transformational change attempt which took place in the early 1960s, as well as the one which took place in the late 1970s, were supported by ACR-based reasons, this does not mean that all CMBC members embraced the ACR-component of these transformations. Indeed, the value-based reasons supporting faculty members' understanding of CMBC as a non-professional school were never well-understood or embraced by many constituency and board members. It is not that the latter two groups did not believe that a legitimate mission of their church school should be to provide theological literacy to lay church members; rather, they felt that an additional legitimate value of CMBC was to train full-time churchworkers. Similarly, views differed on whether primary emphasis should be placed an academic pursuits (as called for by the 1960s transformation), or on experiential faith development (more consistent with the 1950s and increasingly with the 1980s activities at CMBC).

A similar slippage between formal and cultural rationalities was also evident in the late 1970s when CMBC formally strengthened its practical theology. In this case, the new formal rationality fit more comfortably with the values of board and constituency members (who were largely initiating the change) than with those of faculty members, who were still embracing the cultural rationality developed in the 1960s. Indeed, some CMBC faculty members feel that a well-articulated value-basis for strengthening practical theology has yet to be developed. Some faculty members are reluctant to accept that CMBC is no longer a non-professional school because they fear that an increasingly strong practical theology emphasis will lead to the replacement of existing programs of study with more skills- and/or liberal arts-oriented programs (both of which are PnR for existing faculty members).

Taken together, these observations underline the centrality of a value-basis for transformational change attempts which are implemented. However, they also point out this value-basis may be manifest in a poorly understood and grudgingly-accepted system of values which complement FR changes.

A strong primary ACR-basis alone does not guarantee the implementation of a transformational change attempt, as is demonstrated by the dismissed change attempt in the early 1980s to transform CMBC into a liberal arts college. CR-based reasons provided the primary support for this change attempt for all three respondent groups. Furthermore, lengthy documents and proposals were presented which established the value of a liberal arts college (e.g., CMC owes its young people an opportunity to receive liberal arts education in a Canadian Mennonite setting). However, because the change attempt was perceived as a departure from past CMBC values, the strong supporting CR-basis was insufficient for transformation to take place.

Thus, if the second line of resistance is to be overcome and implementation occur, it seems imperative that the value-basis supporting a change attempt be perceived as being consistent with past organizational values. For example, when CMBC became accredited by the UM in the early 1960s, it was said that this had been part of the college's founding vision. Similarly, when CMBC strengthened practical theology in the late 1970s, it was again argued that this was consistent with CMBCs founding vision.

In sum, the interview and archival data support and suggest an elaboration of hypothesis 2. Specifically, Type

2 transformational change attempts which are primarily supported by ACR-based reasons which are perceived to be consistent with an organization's previous values are more likely to be implemented than attempts which are not.

The questionnaire data also lend support to the hypothesis. If Weber is correct, and changes which are of the greatest historical consequence do rely on ACR-based reasons to displace existing rationalities, then two findings could be expected. First, it would be expected that value-based reasons would be more important than self-interest- or efficiency-based reasons when Type 2 transformational change attempts were implemented. Put differently, it would be expected that, for implemented Type 2 change attempts, questionnaire respondents' net CR scores would be greater than net FR or net PR scores (recall that net scores were calculated by subtracting the standardized scores of rationality-based reasons opposing a specific transformational change attempt from reasons favoring the attempt). Second, it would be expected that net CR scores would be higher for implemented Type 2 transformational change attempts than other attempts.

Table 6.3 (see next page) indicates that, for all three respondent groups, it is only implemented Type 2 changes which were primarily supported by culturally rational reasons. Changes of the greatest historical consequence are supported primarily by alternative culturally rational reasons. For example, the average board and faculty

Table 6.3
Relative importance of net cultural, formal and political rationality scores by
i) implemented versus dismissed change attempts,
ii) respondent group, and
iii) change type

A. Relative importance of net rationality-based reasons for implemented transformational change attempts

	Faculty net scores	Board net scores	Non-member net scores
Type 2 implemented attempts	**CR**(1.1) FR(0.7) PR(0.2)	**CR**(0.9) FR(0.3) PR(-0.6)	**CR**(1.1) FR(0.9) PR(0.3)
# respondents	10	7	7
Type 1 implemented attempts	**PR**(1.2) **FR**(1.2) CR(0.3)	**FR**(2.6) PR(0.3) CR(0.1)	**FR**(0.3) PR(-0.7) CR(-0.8)
# respondents	3	3	4

B. Relative importance of net rationality-based reasons for dismissed transformational change attempts

	Faculty net scores	Board net scores	Non-member net scores
Type 2 dismissed attempts	**FR**(-0.7) PR(-0.4) CR(-0.3)	**FR**(-0.9) PR(-0.2) CR(-0.2)	PR(0.3) FR(0.9) CR(1.1)
# respondents	22	13	12
Type 1 dismissed attempts	**CR**(-0.8) PR(-0.6) FR(-0.4)	**PR**(-0.3) **FR**(-0.2) CR(-0.1)	FR(0.9) CR(0.9) PR(0.6)
# respondents	8	12	6

Note: CR refers to cultural rationality
PR refers to political rationality
FR refers to formal rationality

members' scores indicate that the net cultural rationality score (1.0) for implementing Type 2 transformational changes was twice that of the next largest net rationality score (formal rationality at 0.5). This is further illustrated by the implementation of the Type 2 transformation which took place in the late 1970s when CMBC relaxed its emphasis on non-professional instruction and strengthened its practical theology. For all three response groups, the net CR score was the highest of the three net rationality scores supporting that change.

Table 6.3 is important not only because it lends support to the hypothesis, but also because of the further differentiation it enables between Type 2 and Type 1 transformations. The finding demonstrates the efficacy of providing an ACR-basis in order for Type 2 change to be implemented, and suggests that a primary ACR-basis is not necessary for Type 1 changes to be implemented. This finding dovetails neatly into the discussion under hypothesis 1, where it was noted that implementation requires overcoming a CR-based line of resistance, and that a CR-based resistance may be expected to be stronger for Type 2 than Type 1 change attempts.

In sum, hypothesis 1 is supported; transformational changes of the greatest historical consequence are based primarily on culturally rational reasons.

Hypothesis #3

Transformational change attempts are more likely to be implemented the less they are based on politically rational reasons, and when they are less in the self-interests of change initiators than of other stakeholders.

This somewhat counter-intuitive hypothesis is premised on the notion that change proponents who do not act in their own self-interests will thereby be less likely to be acting against the self-interests of others. Put differently, despite the fact that change initiators' support of a given change attempt may be lessened because the change is not PR for them (i.e., all other things being equal, decreased PR support for a change would be expected to be associated with a decreased likelihood of implementation), precisely because a change attempt is not particularly PR for initiators it is more likely to be PR or not PnR for non-initiators (and thereby the resistance to the change attempt by non-initiators is minimized, and the likelihood of implementation increased).

Archival and interview data generally lent good support to the hypothesis. For example, comments made during interviews and meetings suggested that especially CMBC faculty members are careful to ensure that change attempts which they promote are not *perceived* to be in their self-interests. This is reflected in the careful wording and re-wording of documents presented to the board and to the CMC constituency. Also, according to one interviewee, faculty members' reluctance to speak for or against certain organizational issues at CMC annual general meetings is a reflection of their desire to avoid constituency members asking, "What's in it for the faculty members?". Thus, experience seems to have taught faculty members that change attempts (regardless of whether they actually are in faculty members' self-interests) will more likely be implemented if perceived by others not to be in faculty members' self-interests than change attempts which others perceive to be in faculty members' self-interests.

Perhaps the most striking exceptions to this hypothesis took place during 1959-1964, an era during which CMBC was experiencing relatively intense performance-based crises (see Figure 5.1). During this period CMBC board members initiated a change attempt to have CMBC move towards becoming a liberal arts college. Despite the fact that the initiative for this change came largely from board members, the net political rationality score for board members was very low (-1.8). It follows from the hypothesis that this PnR behavior should have made implementing the change relatively easy (because of the lack of resistance from others) for the then-powerful board. However, as it turns out, becoming a liberal arts college was also against the self-interests of faculty members (-0.4).

Meanwhile a second concurrent change attempt, to establish a residence college, being championed from within the faculty, was PnR for board members (-0.9) as well as for faculty (-0.2) (indeed, even the faculty member championing the attempt had a negative net PR score). Both these change attempts, which were PnR for initiators (which should have facilitated implementation) were also PnR for non-initiators (which served to work towards dismissal).

A third change attempt, to become a non-professional college and seek university accreditation, and the one which was eventually implemented, was initiated by and was somewhat PR for faculty members (0.2) and less PnR for board members than the attempt which the board members themselves had initiated (-1.5). This example is not as hypothesized.

In sum, although archival and interview data generally lent support to the hypothesis, they also implicitly suggest several elaborations. First, transformational change attempts are more likely to be implemented the less they are perceived to be based on politically rational reasons. Second, the attempts which took place in the late 1950s and early 1960s provide support for two caveats to the hypothesis: i) even if change attempts are very PnR for initiators, they may be dismissed if they are also PnR for non-initiators; ii) even if change attempts are PR for initiators and PnR for non-initiators, they may be implemented if no more-PR alternative is put forward by non-initiators AND an organization is experiencing intense crisis.

Support for the hypothesis is also found in the questionnaire data. Table 6.4 shows how, relative to the other two rationality types, implemented change attempts were based least on PR reasons. Indeed, for two respondent groups (board members and non-CMBC-members) the net PR scores were negative, indicating that they rated PR reasons opposing transformation as more important than PR reasons favoring transformation. In general, the data indicate that implemented change attempts are characterized by a general lack of self-interested behavior.

Table 6.4
Relative importance of net cultural, formal and political rationality scores by
i) implemented versus dismissed change attempts, and
ii) respondent group

A. Relative importance of net rationality-based reasons supporting implementation of implemented transformational change attempts

	Faculty net scores	Board net scores	Non-member net scores
All	CR(0.9)	FR(0.9)	FR(0.7)
implemented	FR(0.8)	CR(0.7)	CR(0.4)
attempts	**PR**(0.4)	**PR**(-0.3)	**PR**(-0.1)
# respondents	13	10	11

B. Relative importance of net rationality-based reasons supporting dismissal of dismissed transformational change attempts

	Faculty net scores	Board net scores	Non-member net scores
All	FR(-0.6)	FR(-0.6)	**PR**(0.4)
dismissed	CR(-0.4)	**PR**(-0.2)	CR(0.8)
attempts	**PR**(-0.4)	CR(-0.2)	FR(0.8)
# respondents	30	25	19

This lack of PR-based support is especially evident in implemented Type 2 transformational changes (see Table 6.3 under hypothesis 2). However, Table 6.3 further shows that dismissed change attempts may also exhibit low net PR scores if the net scores for the other two rationality types are also low.

In a further test of the hypothesis, those individuals who initiated each specific transformational change attempt were identified, and the respondent group to which these initiators belonged was determined. Eight of the eleven transformational change attempts were found to have been initiated within one respondent group; three of the eleven were found to be initiated within two respondent groups. The average net political rationality scores were then calculated for the various respondent groups to which the initiators belonged according to whether the change attempts were implemented or not, and is shown in Table 6.5.

Contrary to what may have been suggested by the hypothesis, the first line in Table 6.5 shows that, generally, the average net PR scores for initiators' respondent groups were larger when changes were implemented (0.17) than when change attempts were dismissed (-0.21). This result is consistent with the more intuitive observation that individuals tend to act in their own self-interests.

However, a finding shown in Table 6.5 which is consistent with hypothesis 3 is that, generally, implemented

Table 6.5
Net political rationality (PR) scores for change attempt initiators versus those who did not initiate change attempt

Average net PR scores for:	Implemented Attempts	Dismissed Attempts
average of all respondent groups	0.17 (N=9)	-0.21 (N=18)
all initiators' respondent groups	0.10 (N=4)	-0.14 (N=7)
all non-initiator's respondent groups	0.22 (N=5)	-0.25 (N=11)

Note: scores are the respondent groups' to which initiators of transformational change attempts belonged.

change attempts are initiated by individuals whose net political rationality scores are lower (0.10) than those of non-initiators (0.22). Furthermore, and again supporting hypothesis 3, when transformational change attempts are dismissed, initiators tend to have higher (-0.14) net political rationality scores than non-initiators (-0.25).

An example supporting this hypothesis is the transformational change attempt implemented at CMBC in the late 1970s, when the strengthening of practical theology meant that CMBCs status as a non-professional school needed to be relaxed. In this change attempt, all three respondent groups' net PR scores were the lowest of the three net rationality scores. The scores of the non-initiating group (faculty, 0.2) was marginally higher than that of the two initiating groups (board, 0.1; non-members, -0.2).

Thus, the questionnaire data lend good support to the hypothesis, and also serve to elaborate it. Specifically, these data suggest that transformational change attempts are more likely to be implemented if weakly PR for initiators and moderately PR for non-initiators.

Taken together, the archival, interview and questionnaire data provide qualified support for the hypothesis. The data suggest that implemented transformational changes generally are less PR for initiators than non-initiators (as hypothesized). Furthermore, the data also showed a high degree of care in managing the perceptions of PR dynamics associated with change attempts. This leads to the following elaboration of hypothesis 3: transformational change attempts are more likely to be implemented when the proposed changes are perceived to be weakly in the self-interests of change initiators, and moderately in the self-interests non-initiators.

Hypothesis #4

Increased crisis intensity increases the likelihood of transformation because:

a) increased crisis intensity is associated with an increase in the number of transformational changes being attempted;

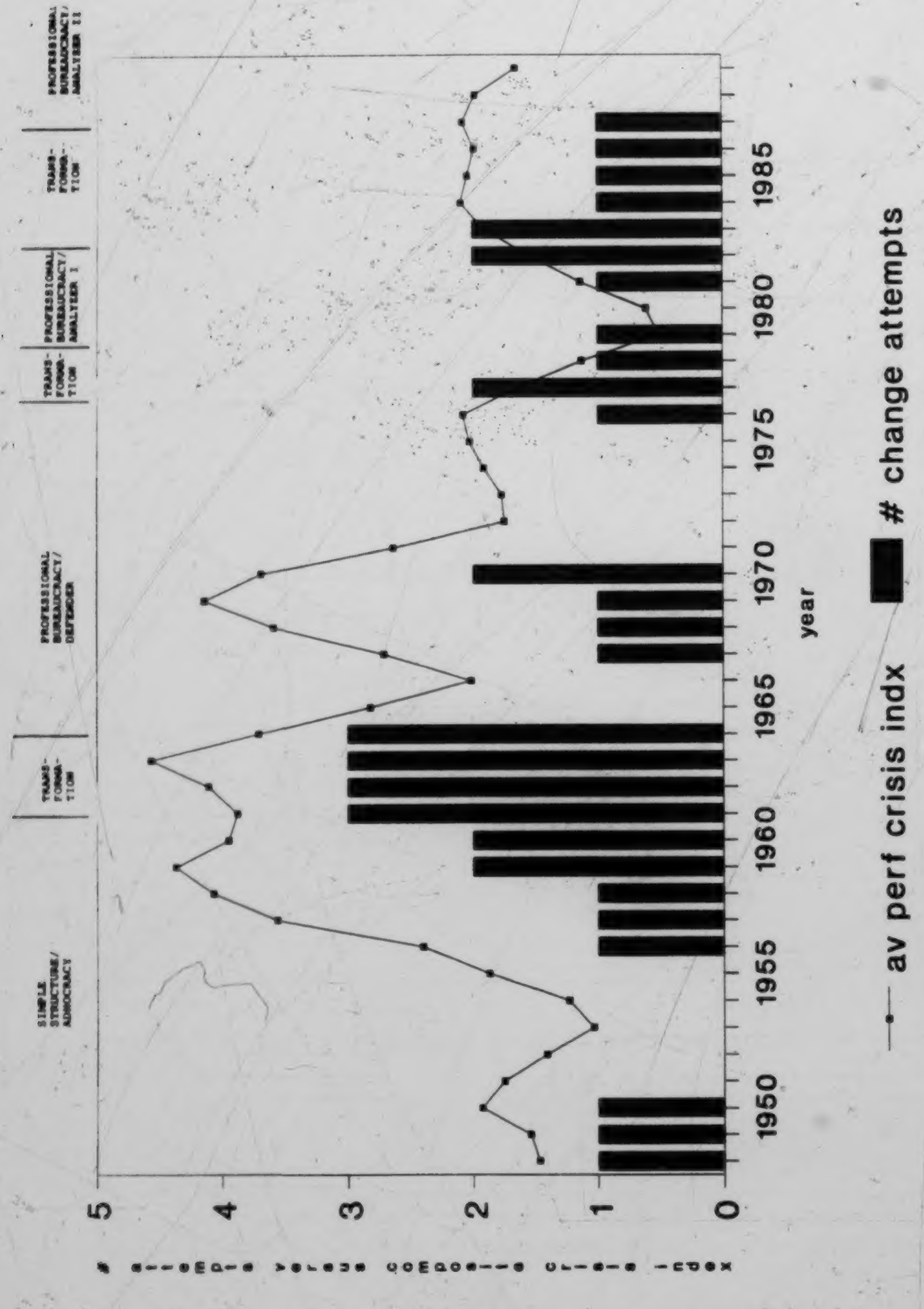
b) increased crisis intensity is associated with an increased likelihood that change attempts are implemented; and

c) increased crisis intensity is associated with a decrease in an organization's members' support for an existing formal rationality and an increase in support for an alternate formal rationality.

The discussion of this hypothesis will be divided into its three parts. The premise informing the first part, that increased crisis intensity is expected to be associated with an increase in the number of change attempts being attempted, suggests that as organizational members perceive their organization to be experiencing crisis associated with their existing means-ends configuration, they will be inclined to look for and/or have thrust upon them attempts to introduce various new means-ends configurations to help overcome the crises.

Interview and archival data lend support to the first part of the hypothesis. The highest number of transformational change attempts made at CMBC were made during the early 1960s. This coincided with the period of most intense crisis at CMBC (see Figure 6.1). At least five factors can be identified which contributed to the crisis intensity CMBC experienced beginning in the late 1950s. First, during these years transformational changes were taking place at the CMC level, where the ordained-for-life elder-based authority structure was being challenged and

Figure 6.1
Performance-based crisis index and number of transformational change attempts at CMBC; 1948 to 1989



replaced with a bureaucratic structure.

Second, CMBC was facing financial difficulties. At three successive CMC annual general meetings (1955-1957) delegates failed to give sufficient support to allow for a residence building to be erected on CMBCs campus.

Third, CMBC was having problems in personnel. Key church leaders in Manitoba were pushing for the dismissal of a student-favorite faculty member, and the CMBC President threatened to resign if the member was not dismissed. When, after years of discussion on this topic, the faculty member was finally dismissed, students and alumni were outraged and made many petitions to the CMBC board chairman to give an accounting of this action. It was observed that dismissing this faculty member, whose scholarliness was well-regarded at the University of Manitoba (UM), could undermine CMBCs status as a credible academic institution with UM (soon after the dismissal, CMBC was stripped of its minimal accreditation privileges due to internal restructuring at UM). Other key faculty members approached the board and asked for an explanation of the faculty members' dismissal. These colleagues stated that if the dismissal was for theological reasons, as it had been publicized, then they too should be dismissed, for they shared their dismissed colleague's theology.

Fourth, it was becoming evident that the interests of the students attending CMBC were changing from professional churchwork to more social work and general academic education.

And fifth, at this time a CMC-related group of Mennonites in Ontario were beginning to discuss establishing a Mennonite residence college in that province.

The net result of these conditions was that CMBC board members no longer were permitted to run CMBC (their traditional authority base was being removed), no longer were competent to run the college (as evidenced by their dismissal process), and probably no longer wanted to run the college (due to the increasing criticism involved therein). Furthermore, CMBCs purpose as a full-time churchworker preparation school seemed outdated (changing aspirations of students), its academic credibility weakened (loss of accreditation with UM), and its status as the unique CMC post-secondary educational institution threatened (due to the residence college planned in Ontario).

It should come as little surprise then, that CMBC members were scrambling to try to re-establish support within CMC and to find themselves a new niche. The early 1960s saw a total of three different transformational change attempts. In sum, heightened crisis intensity here seemed to be associated with an increase in number of transformational change attempts being implemented.

To further test this part of the hypothesis, the researcher compared the performance-based crisis index to the number of change attempts facing CMBC during each year between 1948 to 1989. As predicted by the hypothesis, and graphically depicted in Figure 6.1 above, an increase in crisis intensity seems to be followed by an increase in number of transformational change attempts made; a decrease in crisis intensity seems to be followed by a decrease in number of transformational change attempts made. Indeed, the correlation coefficient is 0.60 ($r^2=0.36$). Note also that, despite what Figure 6.1 may suggest, there is no time lag before crises are followed by change attempts.

A further test of the hypothesis is presented in Table 6.6, which shows how the average number of change attempts made in any given year is positively related to the crisis intensity CMBC faced that year. Both these findings lend support to the hypothesis.

Table 6.6
Average performance-based crisis scores versus number of change attempts made per year

No. of attempts made in years	Average crisis score	No. of years
3	4.1	4
2	2.9	6
1	2.3	17
0	1.8	15

Note: data available for years 1948 to 1989.

Taken together, the data lend strong support to the hypothesis that increased crisis intensity is associated with increased number of transformational changes being attempted.

Hypothesis #4 (b)

Increased crisis intensity increases the likelihood of transformation because increased crisis intensity is associated with an increased likelihood that change attempts are implemented.

This part of the hypothesis is based on the argument that increased crisis intensity will be associated with an increased sense of urgency of the need for change and therefore openness to implement change.

The interview and archival data lend little support to this hypothesis. The discussion under hypothesis 4a already introduced an example of a transformational change which was implemented during a period of intense crisis, when in the early 1960s CMBC became a university-accredited non-professional college. An example of an implemented change attempt which did not seem to be associated with an intense crisis was the change which took place in the late 1970s, when CMBC shifted from a non-professional studies emphasis to a strengthening of practical theology. While it has been argued by at least one faculty member that student enrollment was dropping at crisis proportions in the mid 1970s, most board and faculty members did not seem to perceive this as a crisis. Indeed, as will be further discussed under hypothesis 4c, one interviewee suggested that the transformation in the late 1970s could be implemented precisely because there was no crisis at the time.

Taken together, these examples suggest that crisis intensity may have little effect on the likelihood of transformational change attempts being implemented, and, indeed, may at times have an opposite effect to that which was predicted.

To further test this part of the hypothesis, the intensity of crises facing CMBC in a given year was compared to the number of successful and dismissed change attempts taking place that year (see Table 6.7). If the hypothesis were true, then it could be expected that i) the average number of change attempts implemented per year would increase with the level of crisis faced by CMBC, and obversely, ii) the average number of change attempts dismissed per year would decrease with the level of crisis faced by CMBC.

Table 6.7
Performance-based crisis intensity versus number of dismissed and implemented transformational change attempts

crisis scores	total no. of years	no. attempts implemented associated with year	no. attempts dismissed associated with year	ratio of implemented to dismissed
4 to 5	5	2; 0.40/yr	8; 1.60/yr	0.25
3 to 3.99	7	2; 0.29/yr	10; 1.43/yr	0.20
2 to 2.99	9	3; 0.33/yr	3; 0.33/yr	1.00
0 to 1.99	21	6; 0.29/yr	7; 0.33/yr	0.86

Note: for years 1948 to 1989 when information available

The data in Table 6.7 lend little support to the hypothesis. First, the positive relationship between level of crisis and number of transformational changes implemented is weak at best. The data do suggest that implementation of transformational change attempts may be heightened with relatively extreme crises; two of the five years where CMBCs crisis score was greater than 4.0 were associated with transformational change attempts. However, the number of implemented transformational change attempts does not seem to change during lower levels of crisis intensity.

Second, the relationship between level of crisis and number of transformational changes dismissed shows a strong negative relationship, opposite to what was predicted. Further discussion of these unexpected findings is found in Chapter 7.

Taken together, the interview, archival and questionnaire data lend little support to the proposition that increased crisis intensity is associated with an increased likelihood that transformational change attempts will be implemented.

Hypothesis #4 (c)

Increased crisis intensity increases the likelihood of transformation because increased crisis intensity is associated with a decrease in an organization's members' support for an existing formal rationality and an increase in support for an alternate formal rationality.

This part of the hypothesis is premised on the notion that as crisis intensity increases, members will be more cognizant of the need for change (e.g., in order to ensure viability and job security) and therefore also be more open to and desirous of change, and less committed to existing formal rationalities.

The interview and archival data served more to disconfirm rather than support this part of the hypothesis. Perhaps the most striking example of this is the change in attitude toward transformation which took place between the late 1960s and the late 1970s. In the late 1960s CMBC faculty and board members were being severely criticized for allowing CMBC students to behave in ways which CMC constituency members did not approve of (e.g., having long or unkempt hair, shabby clothing, smoking). At that time faculty members consciously made the corporate decision not to impose more stringent regulations on the students. Instead, they worked together with the students and continued the CMBC tradition (and a key founding value) of encouraging students to corporately take responsibility for their behavior. By the early 1970s faculty members felt the constituency's criticism give way to encouragement, as constituency members understood and affirmed what faculty and board members had been doing. One CMBC member suggested that CMBC faculty members were ready for change in the late 1970s precisely because they no longer felt a need to be defensive; support for the faculty's way of running CMBC had been affirmed, and this freed faculty members to be open to and accommodate other criticisms which constituency members had been presenting since the 1960s.

Questionnaire data were adapted to further test this part of the hypothesis. Levels of commitment to existing and alternate rationalities were compared to levels of crisis intensity for the years during which the former were available. Rationality scores opposing specific transformational change attempts were utilized to measure the level of organizational members' commitment to CMBCs existing rationalities, and rationality scores favoring specific change attempts were utilized to measure the level of commitment to alternate rationalities. Average scores for each of the three rationality types favoring and opposing change attempts were determined for each respondent group for each change attempt (data were not included when less than three responses per respondent group per attempt were available). These average scores were then compared to the average crisis intensity for each year associated with each change attempt. To help identify patterns, crisis intensity scores shown in Table 6.8 were grouped along breakpoints.

Following the hypothesis, one would expect that as crisis intensity increased, respondents': i) opposition to transformational change attempts would decrease, and ii) support for transformational change attempts would increase.

Note that this test is not as strong as would be

Table 6.8
Intensity of performance-based crisis versus
level of organizational members commitment to
A) existing formal, cultural, and political rationalities
and to
B) alternate formal, cultural, and political rationalities

A. Measures of respondent group members' commitment to existing formal, cultural, and political rationalities

respondent groups' scores		crisis scores lie between: 0.8 to 1.1	1.7 to 2.1	3.3 to 3.7	4.1 to 4.2
Faculty	FR	**1.1**	**0.8**	**1.2**	**2.0**
	CR	**0.6**	**0.6**	**1.7**	**1.8**
	PR	**0.6**	**0.3**	**1.2**	**2.1**
	average (N)	**0.8** (2)	**0.6** (3)	**1.4** (3)	**2.0** (2)
Board	FR	1.8	1.1	0.6	2.1
	CR	**1.4**	**1.3**	**1.5**	**1.9**
	PR	**0.2**	**0.3**	**0.4**	**1.6**
	average (N)	**0.9** (2)	**0.9** (4)	**0.8** (2)	**1.9** (2)
Non-mbrs	FR	**0.7**	**1.1**	**0.6**	**0.4**
	CR	0.9	1.3	0.6	0.7
	PR	0.7	0.9	0.0	0.6
	average (N)	0.8 (2)	1.1 (3)	0.4 (2)	0.6 (1)

B. Measures of respondent group members' commitment to alternate formal, cultural, and political rationalities

respondent groups' scores		crisis scores lie between: 0.8 to 1.1	1.7 to 2.1	3.3 to 3.7	4.1 to 4.2
Faculty	FR	1.3	1.6	0.9	1.3
	CR	1.5	1.3	0.9	1.9
	PR	0.7	1.0	0.6	1.8
	average (N)	1.2 (2)	1.3 (3)	0.8 (3)	1.7 (2)
Board	FR	**1.8**	**1.8**	**1.1**	**0.3**
	CR	**2.3**	**1.7**	**1.8**	**1.1**
	PR	**0.6**	**0.4**	**0.5**	**0.2**
	average (N)	**1.6** (2)	**1.3** (4)	**1.1** (2)	**0.5** (2)
Non-mbrs	FR	**1.1**	**0.8**	**1.2**	**2.0**
	CR	2.1	1.4	0.8	1.8
	PR	0.7	0.5	0.3	1.6
	average (N)	1.3 (2)	0.9 (3)	0.8 (2)	1.8 (1)

Note: **bold-faced** figures highlight data where patterns are clearly evident.

desirable because its measures are likely to be influenced by the nature of the change being attempted (e.g., respondents who were not receptive to a particular change attempt may have been more receptive to a different change attempt), and because rationality scores are available only during years in which CMBC faced change attempts.

The results shown in Table 6.8 are surprising because they are the opposite to those predicted in the hypothesis. Part A of the Table shows that faculty and board members' commitment to CMBCs existing way of doing things increases as the intensity of performance-based crises increases. This is opposite to what was predicted in the hypothesis. For example, faculty members' average rationality score measuring commitment to existing means-ends configurations is a low 0.8 when performance-based crises are lowest (0.8 to 1.1) and a high 2.0 when crises are at their highest (4.1 to 4.2).

Similarly, Part B of the Table indicates that board members' commitment to alternate ways of organizing decreases as the intensity of performance-based crises increases. Again, this is opposite to what was predicted by the hypothesis. Board members' average rationality score measuring commitment to existing means-ends configurations is a high 1.6 when crises are at their lowest (0.8 to 1.1) and a low 0.5 when crisis intensity is at its highest (4.1 to 4.2).

Interestingly, non-members' responses in both Parts A and B are the most consistent with those predicted by the hypothesis. For non-members, commitment to an organization's existing means-ends configuration generally decreases with increases in crisis intensity; commitment to an alternative means-ends configuration generally increases along with crisis intensity. Perhaps the different patterns exhibited by the response of organizational members versus non-members is attributable to respondents' emotional proximity to an organization. As was noted in the discussion under hypothesis 1, organizational members can be expected to feel more ownership of an organization's existing means-ends configuration than non-members. For members, crises are signals to tighten their grip on the old and to shun the new. For non-members, crises are signals to abandon the old and to embrace something new.

In sum, the data suggest that crises make organization members more defensive and less open to alternative means-ends configurations. The hypothesis is refuted.

Hypothesis 5

Heightened opportunity levels increase the likelihood of transformation because:

a) heightened opportunity levels are associated with an increase in the number of transformational change attempts;

b) heightened opportunity levels are associated with an increased likelihood that change attempts are implemented; and

c) heightened opportunity levels are associated with a decrease in an organization's members' support for an existing formal rationality and an increase in support for an alternate formal rationality.

As with hypothesis 4, the three parts of hypothesis 5 will be discussed consecutively. The first part of the hypothesis suggests that as events take place which CMBCs members could or do perceive as opportunities, its members will be more likely to recognize opportunities and more likely to attempt transformational changes which capitalize on them.

The nature of the concepts of opportunities and transformational change attempts, and the fine line separating them, made it difficult to use interview and archival data to test this hypothesis. It was relatively easy to recognize opportunities which were associated with change attempts; these opportunities were perceived and relatively well articulated. However, it would be unusual for interviewees to note that CMBC had an opportunity for change, but that no attempts was made to seize that opportunity. Because opportunities discussed as such in the minutes or identified in interviews were usually associated with change attempts, the minutes and interview data have a built-in bias which supports the hypothesis. However, this does not mean that there were not many other opportunities, whether perceived or not, which were not associated with change attempts.

A better test of this part of the hypothesis was developed using the opportunities index developed in chapter 5. The hypothesis suggests that CMBC would be more likely to face transformational change attempts during years of relatively high levels of opportunities. The opportunity index was compared to the number of change attempts facing CMBC during each year between 1948 to 1989. As is shown in Figure 6.2 on the next page, the level of opportunities shows little relationship to number of transformational change attempts made (correlation coefficient = 0.00).

Table 6.9 (two pages ahead) compares the average number of change attempts made in any given year to the level of opportunities CMBC faced that year. The data show that, except for years during which CMBC faced three concurrent change attempts, the average opportunity score is positively related to the number of change attempts made in a given year. The positive relationship is consistent with the hypothesis. However, the low opportunities score (1.91) in years where three change attempts were made serves to disconfirm the hypothesis.

Taken together, the data lend weak support to the proposition that heightened opportunity levels are associated with an increase in the number of transformational changes being attempted.

Figure 6.2
Opportunities index and number of transformational change attempts at CMBC; 1948 to 1989

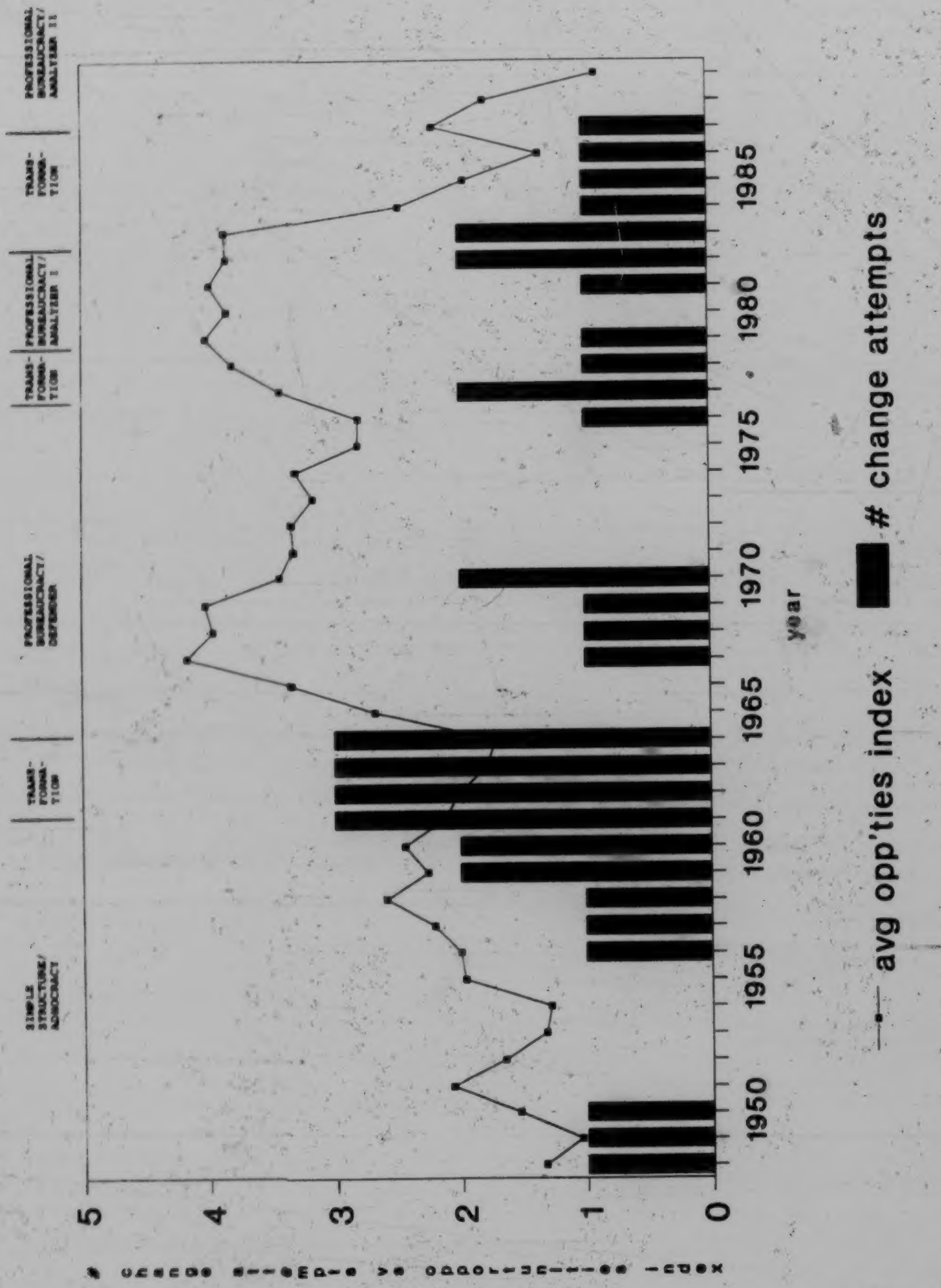


Table 6.9
Opportunity index scores versus
number of change attempts made per year

No. of attempts made in years	Average opp'ty score	No. of years
3	1.91	4
2	**3.21**	6
1	**2.67**	17
0	**2.45**	15

Note: data available for years 1948 to 1989.

Hypothesis 5 (b)

Heightened opportunity levels increase the likelihood of transformation because heightened opportunity levels are associated with an increased likelihood that change attempts are implemented.

This part of the hypothesis is premised on the notion that the more opportunities for alternate means-ends configuration there are to entice organizational members, the more likely members will choose to implement one of them. This is an extension of the argument that transformation cannot take place without opportunity.

The same difficulties in using archival and interview data discussed under hypothesis 5a plague the use of these sources to test this hypothesis. However, the transformational change which took place in the late 1970s seems to provide an example of a change which was a function of opportunities and what Clark (1972) has called a general readiness to change. In terms of opportunities, two merit mention: i) financial (by the late 1970s CMBC faculty had become the best-paid of all North American Mennonite colleges), and ii) personnel (1978 saw the appointment of a new President, who was given the mandate to bring change to CMBC). But beyond increased opportunity levels, the late seventies seemed to be characterized by a readiness for change: i) the former means-end configuration seemed to have lost some of its original sparkle, and ii) faculty members, who had survived the student unrest characteristic of post-secondary educational institutions in the late 1960s, were ready and confident for new challenges.

Also, it is noteworthy that each implemented change attempt follows the appointment of a new CMBC president, as is shown in Table 6.10 (see next page). This is not to suggest that there is a simple relationship between these two factors; the historical data clearly show that many other factors are involved (as is also evident in the other hypotheses tested here). However, the data do lend support to the proposition that transformational change attempts are more likely to be implemented if an organization has recently made a leadership change.

In another test of this part of the hypothesis, the level of opportunities facing CMBC in a given year was compared to the number of implemented and dismissed change attempts taking place that year (see Table 6.11). If the hypothesis were true, then it could be expected that i) the

Table 6.10
Appointment of new CMBC presidents versus implemented transformational change attempts

appointment of a new president*	year of implemented transformational change attempts
1947	
1951	
1959	1961 to 1964
1977	1977 to 1979
1983	1982 to 1987

*note: these years do not include appointment of interim presidents (e.g., in years where existing president is on sabbatical)

Table 6.11
Opportunity index levels versus number of dismissed and implemented transformational change attempts

opp'ty scores	total no. of years	no. attempts implemented associated with year	no. attempts dismissed associated with year	ratio of implemented to dismissed
4 to 5	3	1; 0.33/yr	2; 0.66/yr	0.50
3 to 3.99	13	4; 0.31/yr	7; 0.54/yr	0.57
2 to 2.99	13	4; 0.31/yr	12; 0.92/yr	0.33
0 to 1.99	13	4; 0.31/yr	7; 0.58/yr	0.57

Note: for years 1948 to 1989 when information available

average number of change attempts implemented per year would increase with the level of opportunities faced by CMBC, and obversely, ii) the average number of change attempts dismissed per year would decrease with the level of opportunities faced by CMBC.

Table 6.11 shows that the dismissal or implementation of change attempts is unrelated to the level of opportunity facing CMBC. In fact, it is striking how the implementation of change attempts seems to be totally unaffected by opportunity levels (always 0.31 to 0.33 implemented attempts per year). The data in Table 6.11 lend no support to the hypothesis.

In sum, the data provide only weak support to the proposition that heightened opportunity levels are associated with an increased likelihood that transformational change attempts are implemented. The only exception is in the relationship between personnel-based opportunities and transformational changes, where the former seems to be associated with the latter.

Hypothesis 5 (c)

Heightened opportunity levels increase the likelihood of transformation because heightened opportunity levels are associated with a decrease in an organization's members' support for an existing formal rationality and an increase in support for an alternate formal rationality.

This part of the hypothesis is premised on the notion that organizational members will be enticed by the new possibilities associated with opportunities, becoming open to and desirous of change and less committed to existing formal rationalities.

Generally, data drawn from interviews and minutes provided tentative support for the hypothesis. Enthusiasm often characterizes discussions of new opportunities. Participants seemed to be eager to think about possibilities of what improvements could be made. For example, when a local Mennonite high school asked if it could move onto and share CMBCs campus, there was a sense of excitement as CMBC members discussed the additional physical facilities (e.g., improved gymnasium and auditorium facilities) which might be associated with such a change. However, such discussions were also characterized by hesitance to make changes. This apprehension seemed to increase along with the specificity of proposals for changes. It seems that visioning is acceptable and enjoyable, up until the point where it seems that the visions could actually become implemented.

An interesting example illustrating this latter phenomenon took place late in the research period. Ever since and even before CMBCs founding, there has been a vision for CMBC to co-operate more closely with the Mennonite Brethren Bible College (a CMBC-like institution founded in Winnipeg in 1942 by the Mennonite Brethren, a group of Mennonites which separated from the Russian forefathers of the CMC in the late 1800s for religious reasons). In the past, the lack of closer co-operation between the two colleges had always been attributed to the Mennonite Brethren (MB) leaders' desire to retain their own distinctive college and to not become "unequally yoked" with the, in their thinking, morally inferior CMC Mennonites. However, in recent years the status of Mennonite Brethren Bible College (MBBC) as the national school of higher education of the Canadian MB conference has deteriorated (due to the increasing popularity of a regional British Columbia based MB-related college, and to the geographic religious differences within the MB constituency). This has prompted discussion as to the possible closing of MBBC, and soon a group of MB leaders formed a "save the college" task force and approached CMBC faculty to ask whether they might be interested in also appointing a task force and together explore the possibilities of closer co-operation between the two colleges. Both task forces were to be comprised of persons without direct vested interests in either college or parent organization.

Given the history that CMBC members' desires to achieve increased co-operation with MBBC had in the past been frustrated due to fears in the MB community, one might have expected CMBC members to jump at this opportunity for closer co-operation. Instead, CMBC faculty members declined the MB invitation arguing that they did not want to develop a relationship while MBBC was in a poor position because it would not be a "level playing field". Furthermore, some faculty members were disgusted by the idea of a task force including non-academics who did not understand what the colleges were all about (and who, coincidentally, might not reflect the interests of faculty members).

In terms of the hypothesis, this example shows that while CMBC faculty members were happy to be seen to be working towards closer co-operation with MBBC as long as MB leaders were unlikely to reciprocate, when the opportunity was presented to work out the specifics of what such cooperation might look like, CMBC faculty members seemed less committed to the possible alternate means-ends configurations.

This part of the hypothesis was further tested using a methodology analogous to that described in hypothesis 4c. Measures of organizational members' level of commitment to CMBCs existing rationalities were created based on rationality scores opposing specific transformational change attempts, and measures of the level of commitment to alternate rationalities were created based on rationality scores favoring specific change attempts. These scores were then compared to opportunity levels facing CMBC during the associated change attempts. Opportunity level scores were grouped along breakpoints to help to identify patterns.

The results are shown in Table 6.12. Part A of the Table supports the proposition that increasing opportunities are associated with a decreased commitment by organization members to existing rationalities. On average, board and faculty members' commitment to existing rationalities was rated as a mere 0.9 when opportunities were high (3.8 to 4.0), and increased to 1.4 when opportunities when opportunities were low (1.9 to 2.4). The lens of

Table 6.12
Intensity of opportunities versus
level of organizational members commitment to: A) existing formal, cultural, and political rationalities and to
B) alternate formal, cultural, and political rationalities

A. Measures of respondent group members' commitment to existing formal, cultural, and political rationalities

opportunity scores lie between:

respondent groups' scores		1.9 to 2.4	2.8 to 3.4	3.8 to 4.0
Faculty	FR	**1.5**	**1.0**	**1.0**
	CR	**1.6**	**1.0**	**0.9**
	PR	**1.5**	**0.6**	**0.7**
	average (N)	**1.5** (4)	**0.9** (2)	**0.9** (4)
Board	FR	1.4	1.2	1.3
	CR	**1.5**	**1.4**	**1.3**
	PR	**1.1**	**0.5**	**0.2**
	average (N)	**1.3** (3)	**1.0** (3)	**0.9** (4)
Non-mbrs	FR	**0.9**	**0.9**	**0.7**
	CR	1.4	0.9	1.1
	PR	**0.8**	**0.7**	**0.6**
	average (N)	**1.0** (2)	**0.8** (2)	**0.8** (4)

B. Measures of respondent group members' commitment to alternate formal, cultural, and political rationalities

opportunity scores lie between:

respondent groups' scores		1.9 to 2.4	2.8 to 3.4	3.8 to 4.0
Faculty	FR	1.3	1.3	1.3
	CR	**1.4**	**1.4**	**1.2**
	PR	**1.4**	**0.6**	**0.8**
	average (N)	**1.4** (4)	**1.1** (2)	**1.1** (4)
Board	FR	**1.1**	**1.1**	**1.7**
	CR	**1.0**	**1.6**	**2.3**
	PR	**0.2**	**0.5**	**0.5**
	average (N)	**0.8** (3)	**1.1** (3)	**1.5** (4)
Non-mbrs	FR	**2.0**	**1.3**	**1.2**
	CR	1.3	1.6	1.4
	PR	**0.9**	**0.9**	**0.4**
	average (N)	**1.4** (2)	**1.3** (2)	**1.0** (4)

Note: **bold-faced** type highlight data where patterns evident opportunity seems to make one's own grass look less green. This pattern is evident also for non-members.

The patterns found in Part B of the Table partly support and partly refute the hypothesis. As predicted by the hypothesis, board members' commitment to alternate rationalities increased along with opportunities. This relationship is most apparent in CR scores: when the opportunity level was relatively low, board members' CR scores favoring change were also relatively low (1.0); when the opportunity level was relatively medium, board members' CR scores favoring change were also relatively medium (1.6); and when the opportunity level was relatively high, board members' CR scores favoring change were also relatively high (2.3). Thus, for board members the lens of opportunity also makes the grass on the other side look greener.

However, in opposition to what was predicted by the hypothesis, a weak pattern shows that faculty members' commitment to alternate rationalities tend to decrease when opportunities increase. Perhaps this is because faculty members have potentially more to lose in any given transformation, so that while their commitment to existing rationalities may be weakened in light of opportunities, their commitment to alternate rationalities also decreases with opportunities because the actual content of the opportunities may not be in their interests. This latter explanation is supported somewhat by the data, where especially faculty members' PR scores favoring change decrease as the level of opportunities increases. This is also consistent with the discussion surrounding increased CMBC-MBBC co-operation, as described above. Both serve to contradict the hypothesis.

In sum, the questionnaire data suggest that, as hypothesized, increased opportunities are associated with weakened commitment to existing rationalities. Furthermore, as hypothesized, for board members increased opportunities are associated with increased support of alternate means-ends configurations. However, contrary to the hypothesis, faculty and non-member responses suggest increased opportunities are associated with a decreased support of alternate means-ends configurations.

Taken together, the archival, interview and questionnaire data provide some support for hypothesis 5c.

Hypothesis 6

The greater the capacity of organizational members to implement a given transformational change attempt, the more likely it is to be implemented.

This hypothesis is premised on the notion that change attempts are less likely to be implemented if organizational members lack the skills necessary to implement change (technical capacity) and/or if organizational members lack a viable organizational model of the transformed organization (theoretical capacity).

Data from interviews and minutes generally support this hypothesis. For example, one interviewee went to some length to stress that a tremendous amount of preparatory work was completed by other faculty members to develop the capacity for CMBC to implement its transformational change in the early 1960s (i.e., to become a non-professional university-accredited college). Similarly, much discussion and various committees and consultants were appointed to design the transformation which took place in the late 1970s (i.e., to strengthen practical theology). Finally, numerous documents detailing arguments were created to support the transformation in the mid-1980s (i.e., to permit extra-CMC individual and corporate fundraising).

And yet, in all three of these implemented changes, minutes and interviewees agree that CMBC lacked a fully-developed model or understanding of the transformation. Indeed, in one case the president stated that even as a specific transformation was being implemented, it was uncertain as to whether it would be workable. This leads to several questions. Is it possible to implement a transformational change attempt without having the capacity to do so? Can the capacity necessary to implement a transformational change attempt be acquired as the attempt itself is being implemented?

For several dismissed transformational change attempts, proponents of change suggested that the dismissal was due to a lack of desire to implement change, not due to the lack of capacity to implement the change. These comments lend further credence to the notion of there being two lines of resistance to change. First, the comments suggest that overcoming the first (FR-based) line of resistance does not ensure that the second (CR-based) line will also be overcome. In some cases proponents clearly had viable models for their change attempts, but were unable to implement them due to a lack of will on the part of other members.

Second, the comments also underline the importance of actually overcoming the first line of resistance, even though this is not sufficient to ensure implementation. In at least one case change proponents provided primarily CR-based support for the change (which should lead to implementation), but lacking theoretical capacity were unable to overcome the first line of resistance and so their attempt was dismissed. The attempt to establish a residential college on UM campus in the early 1960s was promoted on a CR-basis and generally received good support, but was dismissed when a viable model could not be developed.

The questionnaire data were used to test this hypothesis in several ways. The first test involved comparing those questionnaire respondents who felt that a workable model existed or could be easily developed for the attempted transformation to those respondents who felt a workable model would be difficult/impossible to develop.

The former respondents were categorized as suggesting that transformation would be "easy", the latter respondents were categorized as saying that transformation would be "not easy". Table 6.13 shows that for change attempts which were implemented, eighty per cent of faculty and board respondents felt that the proposed change would be easy to implement. For change attempts which were dismissed, sixty-five percent of faculty and board respondents felt that the proposed change would be difficult to implement. Note that adding non-member respondents to the list does not change the total relationship, despite the fact that only twenty-two percent of these respondents felt that implemented change attempts would be easily implemented.

Table 6.13
Perceived capacity to implement changes
(ease of implementation) versus
transformational change attempts being implemented or dismissed

respondent group	Implemented attempts: easy	Implemented attempts: not easy	Dismissed attempts: easy	Dismissed attempts: not easy
faculty	9*(75%**)	3 (25%)	10 (40%)	15 (60%)
board	7 (88%)	1 (13%)	6 (29%)	15 (71%)
sub total	16 **(80%)**	4 (20%)	16 (35%)	30 **(65%)**
others	2 (22%)	7 (78%)	5 (33%)	10 (67%)
total	18 (62%)	11 (38%)	21 (34%)	40 (66%)

Notes:
*figures indicate the number of respondents in each category
**percentages of responses by respondent group and by whether attempts were implemented or dismissed

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While Table 6.13 shows that perceived capacity was associated with most implemented transformational changes, it also shows that capacity alone did not lead to transformational change. Indeed, transformational change attempts were dismissed in half of the cases where capacity existed. However, when the capacity was lacking the dismissal of transformational change attempts was almost inevitable. Thus, Table 6.13 shows that capacity is a necessary but insufficient precondition for the implementation of transformational change attempts.

A second test of the hypothesis involved comparing the alternative formal rationality (AFR) scores for implemented versus dismissed change attempts by respondent group (see Table 6.14). Specifically, measures for both theoretical and technical capacity were compared. Table 6.14 shows how, as predicted by the hypothesis, for both board and faculty members net capacity scores for implemented transformational change attempts were greater than scores for dismissed attempts. When changes were implemented, net capacity scores were around one; when changes were dismissed, net scores were less than zero.

In sum, the data provide strong support to the hypothesis. Capacity is a necessary but insufficient requirement for transformational change attempts to be implemented.

Table 6.14
Net theoretical capacity and net technical capacity scores for dismissed and implemented transformational change attempts
by respondent groups

Respondent Group	Implemented change attempts	Dismissed change attempts
Faculty		
theoretical capacity	**1.5**	**0.0**
technical capacity	**0.5**	**-0.2**
average	**1.0**	**-0.1**
N =	13	30
Board		
theoretical capacity	**0.9**	**-0.1**
technical capacity	**0.6**	**-0.2**
average	**0.8**	**-0.2**
N =	9	25
Non-members		
theoretical capacity	0.8	0.8
technical capacity	0.5	0.6
average	0.7	0.7
N =	11	19

Summary

Table 6.15 (see next page) summarizes the results presented in this chapter. These can be further discussed in terms of the three main components of the multiple rationalities model of transformational change (Figure 2.1): triggering and enabling conditions, multiple rationalities, and change types.

Triggering and enabling conditions. The analysis helped to isolate unique roles played by each of the three components of triggering and enabling conditions. The role of performance-based crises seems to be to bring transformational change attempts to the consciousness of

Table 6.15
Summary of hypothesis testing

Hyp	Brief description	Finding
1	Type 2 changes = most resistance	strong support
2	ACR basis = more implementation	strong support
3	PnR initiation = more implementation	qualified support
4a)	crisis = more change attempts	strong support
b)	crisis = more implementation	weak support
c)	crisis = less commitment to FPCR	refuted
5a)	opportunity = more change attempts	weak support
b)	opportunity = more implementation	weak support
c)	opportunity = less commitment to FPCR	some support
6	capacity = more implementation	strong support

organizational members. Although transformational change attempts may be ubiquitous in organizations, most attempts fail to receive serious consideration by organizational members. The discussion under hypothesis 4a showed that heightened crisis intensity is associated with an increase in the rate at which well-articulated transformational change attempts are made. However, as discussed under hypothesis 4b, heightened crisis intensity is not necessarily associated with increased likelihood that transformational changes are implemented. Put differently, heightened crisis increases the number of change attempts perceived by an organization's members and non-members, but crisis does not seem to have an affect on the likelihood that a change attempt is implemented. Indeed, as shown under hypothesis 4c, crisis intensity seems to be positively related to the tenacity with which an organization's members will uphold an existing means-ends configuration. In sum, crises increase the pool of change attempts which an organization's members need to consider. It is in this sense alone that crises can be seen to trigger transformational change attempts. This is a significant contribution to existing theories; crises are not necessary for transformations to take place.

Whereas crises often trigger transformational change attempts (by making change attempts agenda items for serious consideration), opportunities serve to increase organizational members' receptiveness to these attempts. As discussed under hypothesis 5c, opportunities may act as a mechanism by which an organization's members' commitment to an existing means-ends configuration is weakened and support of an alternate means-ends configuration is strengthened. However, an increased level of opportunities is not associated with an increased number of transformational change attempts (see hypothesis 5a) nor is it associated with the likelihood that transformational change attempts will be implemented (see hypothesis 5b). In sum, change attempts which have been raised to consciousness for consideration (often via crises) are made attractive by opportunities.

As discussed under hypothesis 6, capacity seems to be a necessary precondition for transformational change attempts to be implemented (board and faculty member questionnaire respondents indicated that capacity was available for over eighty percent of implemented attempts), but capacity alone was not sufficient for changes to be implemented (capacity was available for one third of the dismissed change attempts). In terms of the two lines of resistance as discussed under hypothesis 1, capacity is an important factor in enabling proponents of transformation to overcome the first line of resistance to change. A viable alternative formal rationality (i.e., capacity) is necessary for transformation to take place, but it is insufficient to overcome the second line of resistance.

Taken together, the three triggering and enabling conditions might be seen to work like this: crises trigger change attempts, opportunities make attempts attractive, and capacity permits the attempts to avoid dismissal based on FR reasons. Given the interdependence between and different roles played by these three enabling and triggering conditions, it is important to note that all three need to be considered in order to understand transformational change; a more simplistic model will not suffice.

Underlying rationalities. The framework based on Weber's multiple rationalities was shown to provide a useful heuristic and conceptual device with which to identify key patterns associated with implemented transformational change attempts (and thereby to identify patterns associated with dismissed change attempts and convergence). As has already been shown in the discussion of capacity above, the presence of an AFR means-ends configuration is an important necessary (but insufficient) pre-condition for the implementation of transformational change attempts.

The utility of the framework was especially evident in studying the political and cultural dynamics of transformational change attempts. The results from hypothesis 3 show that implemented transformational change attempts are generally only marginally PR for organizational members. Furthermore, the data suggest that implemented change attempts are less PR for individuals initiating change than for non-initiators. This latter finding implies that lowering resistance to transformation increases the likelihood that attempts will be implemented; if a change attempt is less in the self-interests of initiators than non-initiators, then non-initiators' PR-based reasons to oppose transformation are lessened.

The results from hypothesis 2 went beyond demonstrating the oft-shown folly of assuming that organizational behavior is based primarily on formal rationality. The data show that implemented Type 2 transformational change attempts are primarily based on CR reasons. This is consistent with Weber's view that only cultural rationality has the analytical potential to displace FR and PR behavior. The findings also suggest that the CR-basis should somehow be rooted in values which are perceived to be consistent with an organization's history.

Taken together, these results suggest that transformational change attempts which have been created by crises and made attractive by opportunities are more likely to be implemented if they are rational for organizational members as follows: i) an alternative formal rationality allows proponents of the change attempt to overcome a first line of resistance; ii) the change attempt is less in the self-interests of initiators than non-initiators (which minimizes FPR based reasons for convergence and thereby also helps to overcome the first line of resistance); and iii) culturally rational reasons provide the primary basis supporting the change attempt (which permits a second line of resistance to be overcome).

Change types. As predicted by hypothesis 1, transformational change attempts which encompass both parts of an organization's means-ends configuration (Type 2 changes) face the greatest resistance. This finding suggests that the conditions favoring implementation need to be especially strong for Type 2 change attempts.

Finally, the analysis presented in this chapter has two important general implications. The first is that the multiple rationalities framework discussed in chapter 2 is both useful for understanding and for studying processes in organizations. The second is that insight into the dynamics of transformation can be facilitated by comparing implemented with dismissed change attempts. These will be further elaborated in Chapter 7.

CHAPTER 7

DISCUSSION AND IMPLICATIONS

7.0 Overview

This study set out to improve our understanding of transformational organizational change in order to contribute to organizational theory as well as to help practitioners who are facing increasing demands for transformation. The multiple rationalities model developed in chapter 2 was designed to reveal especially the processual dynamics of transformational change. The unique approach of comparing dismissed and implemented transformational change attempts further facilitated understanding the conditions and processes associated with transformation.

This chapter is divided into two sections. In the first section the findings and analysis presented in chapter 6 are used as a basis to elaborate the model of transformation introduced in chapter 2. The resulting punctuated equilibrium multiple rationalities model of transformational change (see Figure 7.1, two pages ahead) incorporates a temporal dimension and provides a more detailed description of the processes identified in the earlier model. After describing the model, the eleven transformational change attempts identified in this study are classified according to the key categories of the model, and implications for practitioners are presented.

The second section discusses questions for future research based on the punctuated equilibrium multiple rationalities model of transformational change.

7.1 A Revised Model of Transformational Change: Presentation and Implications

This section is divided into three parts. The first part introduces a punctuated equilibrium model of transformational change. The second part describes and briefly discusses each of the eleven change attempts according to the categories of this model. The third part identifies implications of the findings in this study for practitioners.

A. A Punctuated Equilibrium Multiple Rationalities Model of Transformational Change

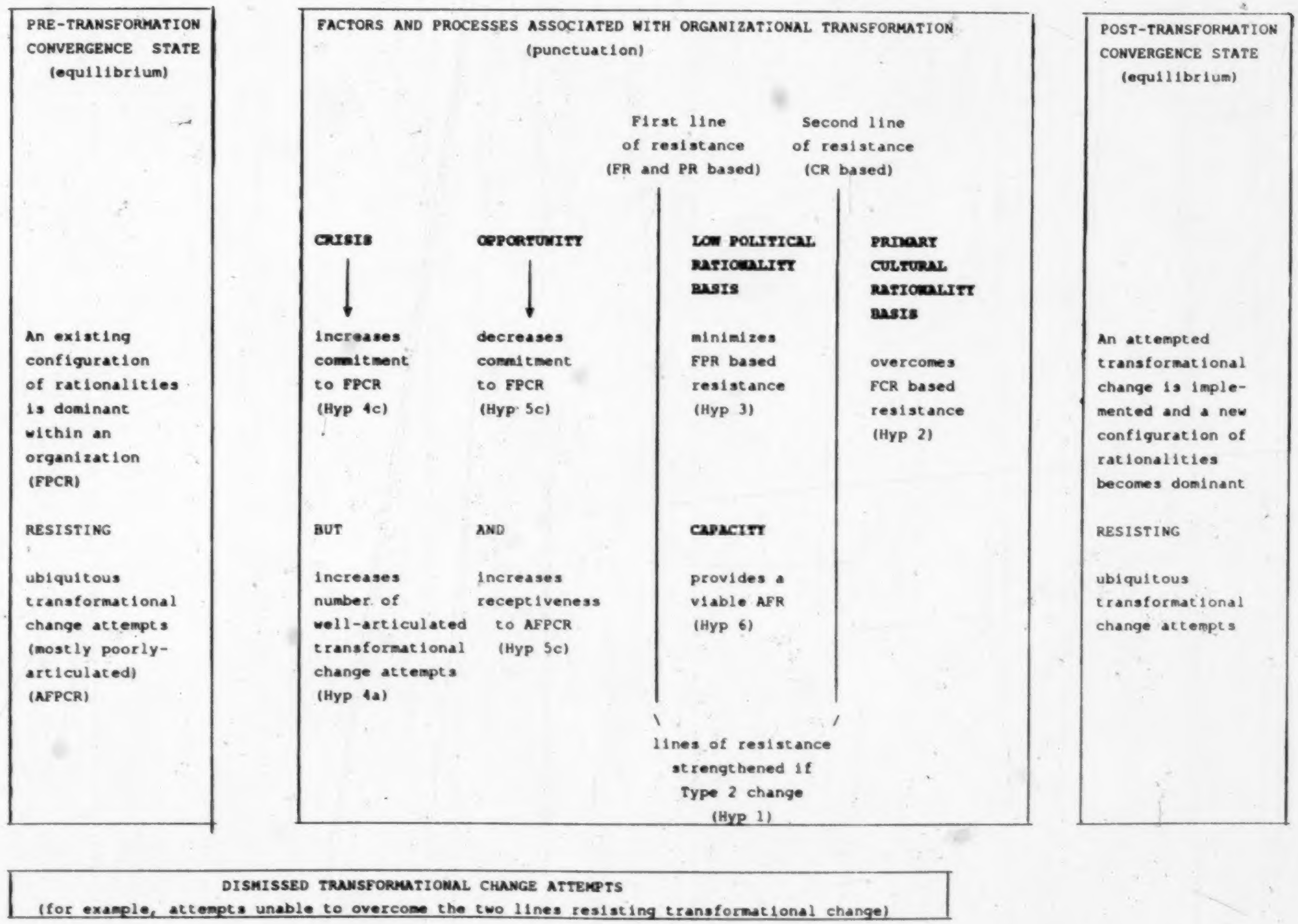
The model of transformational change presented here contributes to the punctuated equilibrium perspective emerging in the literature (e.g., Gersick, 1991; Tushman and Romanelli, 1985). Drawing from previous research (e.g., Abernathy and Utterback, 1982; Greiner, 1972; Miller and Friesen, 1980; Mintzberg, 1978), the punctuated equilibrium perspective suggests that organizations are usually in a state of convergence, dominated by a specific means-ends configuration. On those relatively rare occasions when transformational change does take place, it signals the end of a previous period of convergent equilibrium, and lays the foundation for a new means-ends configuration which characterizes an ensuing period of convergent equilibrium. In this way, transformational changes can be seen to punctuate equilibrium.

The punctuated equilibrium multiple rationalities model of transformational change introduced here is based on the findings presented in Chapter 6 and the earlier model presented in Figure 2.1. The discussion follows the model as presented in Figure 7.1 (see next page) from left to right.

Pre-transformation convergence state

Like previous studies, this model suggests that organizations spend relatively long periods of time in a state of convergence. Recall that convergence refers to a time span during which a given formal rationality is dominant within an organization and transformational change attempts are dismissed. Others working within the punctuated equilibrium perspective recognize that periods of convergence may be associated with "turbulence" (Tushman and Romanelli, 1985) and "perturbations" (Gersick, 1991); however, far from viewing such perturbations as truncated transformations, previous discussions tend to emphasize the passive complacency associated with equilibrium, using descriptors such as "tranquil" (Miller and Friesen, 1984), "inertia" (Gersick, 1991; Tushman and Romanelli, 1985), and "relatively calm" (Greiner, 1972).

Figure 7.1
A Punctuated Equilibrium Multiple Rationalities Model of Transformational Change



PRE-TRANSFORMATION CONVERGENCE STATE
(equilibrium)

An existing configuration of rationalities is dominant within an organization (FPCR)

RESISTING

ubiquitous transformational change attempts (mostly poorly-articulated) (AFPCR)

FACTORS AND PROCESSES ASSOCIATED WITH ORGANIZATIONAL TRANSFORMATION
(punctuation)

First line of resistance (FR and PR based)

Second line of resistance (CR based)

CRISIS → increases commitment to FPCR (Hyp 4c)

OPPORTUNITY → decreases commitment to FPCR (Hyp 5c)

LOW POLITICAL RATIONALITY BASIS minimizes FPR based resistance (Hyp 3)

PRIMARY CULTURAL RATIONALITY BASIS overcomes FCR based resistance (Hyp 2)

BUT increases number of well-articulated transformational change attempts (Hyp 4a)

AND increases receptiveness to AFPCR (Hyp 5c)

CAPACITY provides a viable AFR (Hyp 6)

lines of resistance strengthened if Type 2 change (Hyp 1)

POST-TRANSFORMATION CONVERGENCE STATE
(equilibrium)

An attempted transformational change is implemented and a new configuration of rationalities becomes dominant

RESISTING

ubiquitous transformational change attempts

DISMISSED TRANSFORMATIONAL CHANGE ATTEMPTS
(for example, attempts unable to overcome the two lines resisting transformational change)

Unlike previous studies, a key dimension of the model presented here is the emphasis on the ubiquity of transformational change attempts. Convergence is not characterized by passive complacency; rather, during convergence organizational members actively resist a continuous stream of transformational change attempts. Put differently, convergence refers to actively: i) elaborating an existing formally, politically and culturally rational (FPCR) means-end configuration; and ii) resisting alternate formally, politically, and culturally rational (AFPCR) means-ends configurations (i.e., formal, political and cultural rationalities inconsistent with an existing means-ends configuration).

Dismissed transformational change attempts

Most transformational change attempts remain poorly-articulated and therefore are never placed on the agenda for serious consideration. Such change attempts, which are dismissed with relatively little overt active resistance, were not included in the present study. Attempts which are given consideration (e.g., perhaps because of intense crises or certain opportunities) may be dismissed because they fail to overcome the first line of resistance (e.g., due to FPR based resistance or a lack of capacity) or because they fail to overcome the second line of resistance (e.g., due to lack a primary CR basis).

Factors and processes associated with transformation

Crisis. Like many previous studies, the model shown in Figure 7.1 suggests that the transformation process may be triggered by crises. However, the present model identifies relatively clearly the mechanism by which crises can be seen to trigger transformation. Beyond creating an ill-defined "need" for change, crises are seen to trigger transformation by increasing the number of well-articulated transformational change attempts which an organization's members must deal with. Furthermore, if crises do create a sense of a need for change, this is not associated with a decreased commitment to an organizations existing means-ends configuration. Indeed, consistent with other studies which have found a threat-rigidity response to crises (e.g., Staw, Sandelands, and Dutton, 1981), the present study also shows that increased crisis intensity is associated with heightened commitment to an existing formal rationality, and thereby with increased resistance to transformational change. Thus, crises make an organization's members more defensive (i.e., more committed to an existing FR means-ends configuration and more opposed to an alternative formally rational (AFR) means-ends configurations).

Opportunity. The data suggest that opportunities may serve to "select" certain of the change attempts brought forward by crises. When a change attempt is associated with opportunities, then organizational members will be more open to the attempt (i.e., more likely to embrace an AFR means-ends configuration) and less committed to an existing FR means-ends configuration. In this way, opportunities can be seen to counteract the threat-rigidity response associated with crises. Thus, whereas crises bring change attempts to the attention of organizational members, opportunities make transformational change attempts attractive to them.

Lines of resistance. The interview and archival data indicated that there may be reason to suggest that, in order to be implemented, transformational change attempts must overcome two lines of resistance. The first line of resistance is based on political and formal rationalities; the second line is based on cultural rationality. This finding is not unlike that presented by Isabella (1990), whose research suggests that as substantial change events take place, organizational members first ask what the event means for them, then ask what the event means to their work, and finally ask what the event means overall. Note the parallelism between these questions and the two lines of resistance shown in Figure 7.1. The first question addresses PR concerns (e.g., job security), the second FR concerns (about the performance and execution of work activities), and the third question deals with CR concerns (having to do with the institutionalization process).

Change type. The difficulty in overcoming the two lines of resistance is partly dependent upon the type of transformational change being attempted. Attempts which encompass both parts of an organization's means-ends configuration (i.e., Type 2 changes) face the greatest resistance.

Low political rationality basis. A transformational change attempt which is perceived to be politically nonrational for members (i.e., against their self-interests) will be strongly resisted. Therefore, change attempts are more likely to be implemented if they are not PnR. Because change attempts which are not primarily based on APR reasons generally minimize self-interested reasons opposing transformation, such attempts are more likely to be implemented.

Note that if a transformational change attempt is very PR for all members (and not PnR for anyone), then a primary PR basis could support transformation. However, as will be discussed again later, an attempt which has a high PR basis may be resisted because of jealousy (e.g., individuals may resist changes they perceive to be more in others' self-interests than their own, perhaps because they do not want others to gain relative advantage) or because of an implicit assumption of zero-sum games (e.g., if a change attempt is very much in the self-interests of one group, then it must be at a cost to another group whose interests should be defended).

Note also that the actual PR basis of the change attempt may be less important than organizational members perception of the PR implications associated with the attempt. That is, if those who have much to lose due to a given transformational change attempt do not perceive the attempt to be against their self-interests, they will not put up PR based resistance.

In sum, transformational change attempts which are seen to have a low political rationality basis minimize formally politically rational (FPR) resistance to change, and thereby facilitate overcoming the PR basis of the first line of resistance.

Capacity. The second component of the first line of resistance suggests that a transformational change attempt will be resisted if it is not shown to be achievable. Organizational members will be unwilling to abandon an existing means-ends configuration unless they can be convinced that it can be replaced by a viable, if not improved, configuration. Capacity refers both to the ability to design a workable transformed means-ends configuration, as well as to the ability to implement it. Change proponents must demonstrate that an alternate formal rationality (AFR) exists and can be implemented.

In sum, having the required capacity to implement a transformational change attempt will facilitate overcoming the FR basis of the first line of resistance.

Primary cultural rationality basis. The second, or fundamental, line of resistance is based on the values undergirding an organization's means-ends configuration. In order for a change attempt to be implemented, it must be more than just viable and overcome members' self-interests.

Transformation must also be defended based on culturally rational (CR) reasons. Specifically, the analysis provided in chapter 6 demonstrated the merit of basing transformational change attempts on values consistent with values historically associated with the organization (cf. Albert, 1984). Especially founding values seem to be important here (cf. Kimberly, 1987).

Post-transformation convergence state

Transformational changes which are implemented are associated with a new period of convergence. Rationalities associated with the new means-ends configuration become dominant, and attempts to transformationally change this new configuration are resisted. In this way, pre- and post-transformation convergence states are synonymous.

B. Application of model to change attempts

Table 7.1 provides an overview of each of the eleven transformational change attempts analyzed in this study according to the key categories identified in the model shown in Figure 7.1. This Table suggests that not all factors and processes affecting the transformational change process need to favor transformation in order for transformation to occur. For example, change attempt #1 was implemented despite the fact that crisis intensity was high and opportunity level low.

Change attempt #3 is interesting because it was

Table 7.1
Overview of eleven transformational change attempts according to categories identified in the punctuated equilibrium multiple rationalities model of transformational change

Change			Articulation associated with:		1st line of resistance		2nd line of resistance
No.	Type	Yrs	Crisis	Opp'ty	PRbasis	Cap.	CRbasis
Implemented Attempts							
1	2	1961-64	high	low	medium	maybe	primary
2	2	1977-79	low	high	medium	maybe	primary
3	1	1982-87	low	low	medium	maybe	negative
Dismissed attempts							
4	2	1956-58	high	low	high	maybe	negative
5	2	1959-64	high	low	negative	no	negative
6	2	1959-64	high	low	negative	no	low
7	1	1967-70	high	high	high	maybe	negative
8	2	1970	high	high	medium	no	low
9	1	1976	low	low	high	maybe	negative
10	1	1977	low	high	high	no	low
11	2	1981-83	low	high	medium	maybe	primary

Notes

Crisis scores: high = 3.3-4.1; low = 1.1-2.1
Opportunity scores: high = 3.4-4.0; low = 1.9-2.8
PRbasis of initiators: high = very self-interested
medium = somewhat self-interested
negative = against self-interests
Capacity perceived: maybe = a working model of questioned merit existed
no = poor at best
CRbasis primary = most important
low = low importance
negative = against attempt

implemented despite the fact that it should not have been able to overcome the second line of resistance. For the most part, CMBC members and non-members opposed this change attempt based on CR reasons; and very little CR support could be found. Two factors may help to explain this exceptional result. First, the second line of resistance was relatively weak, given that this was a Type 1 change attempt (i.e., only the means were being changed). Second, if this transformation had not been implemented, then CMBC members would have been forced to make a different transformational change (e.g., it was recognized that a lack of funding would force program to be cut). Thus, change #3 was perhaps the least CnR of a number of possible options facing CMBC.

For most dismissed transformational change attempts the reasons for dismissal are clear: crisis intensity was high (attempts #4 through #8); PR basis was high (attempts #4, #7, #9 and #10); capacity was lacking (attempts #5, #6, #8 and #10); and/or attempts were generally opposed based on CR reasons (attempts #4, #5, #7, and #9).

The one exceptional case is change attempt #11. According to the model, all factors suggest that this attempt should have been implemented. Two reasons may help to explain why this attempt was dismissed. First, as discussed in chapter 6, this attempt was not perceived to be based on values consistent with CMBCs history. Second, this attempt may have been dismissed partly due to its relatively broad scope. Because the attempt involved organizations beyond simply CMBC and its parent, one could be expected that the two lines of resistance should be especially difficult to overcome.

C. Implications for practitioners

The findings of this research have clear implications for practitioners, whether they are attempting to implement or to thwart the implementation of a transformational change. The discussion here will focus on how to implement transformation. Note that this discussion is consistent with work by Festinger (1957), whose notion of cognitive dissonance shows that individuals' actions and their beliefs (or underlying rationalities) will tend to become consonant with each other (cf. Bem, 1972; Staw, 1981). The challenge for a manager who wishes to transform an organization is to first change members' underlying beliefs via changing the content of what is rational for them.

First, practitioners attempting to implement a transformational change should make a well-articulated presentation which forces other organizational members to deliberately consider the change attempt. This may be facilitated by ensuring that other organizational members perceive a performance-based crisis, although it is preferable to avoid this given that crises are associated with heightened resistance to change.

Second, practitioners can make a transformational change attempt more attractive by emphasizing the opportunities the attempt will take advantage of. This will serve to weaken organizational members' commitment to existing ways of running the organization, and increase their openness to new means-ends configurations.

Third, practitioners should ensure that the proposed transformation is perceived to be less in their own self-interests than in the self-interests of other organizational members. Thus, if a given change attempt is PR for initiators, they would do well to conceal this and instead emphasize that the change is more in the self-interests of non-initiators.

Fourth, practitioners promoting a transformational change attempt should ensure that other organizational members perceive there to be a viable workable model supporting the change. Furthermore, organization members should be convinced that they have the know-how to implement the proposed change. This latter step may require hiring new staff with technical expertise currently lacking in the organization.

Fifth, change proponents should develop a strong value-based argument supporting the change attempt. Practitioners should take care to ensure that the central values upon which their attempt is based are perceived to be consistent with values historically espoused within the organization. The primary basis for supporting a change attempt should be that it is the "right" thing to do.

7.2 Future research

The findings of this study serve to provide an agenda for future research. The discussion here will parallel the format of the punctuated equilibrium multiple rationalities model of transformational change.

Pre-transformation convergence state

The history of CMBC lends support to the proposition that organizations experience periods of convergence punctuated by periods of transformation. However, this notion of punctuated equilibrium, which is central to the model in Figure 7.1, may not characterize all organizations in all industries. In order to test the universality of this axiom, future research should be carried out in sites where one might least expect it to hold. For example, organizations competing in industries characterized by rapid technological change and obsoletion may experience virtually perpetual transformation, possibly punctuated by convergence. However, researchers may discover that what may on the surface appear to be perpetual transformation is, upon closer inspection, shown to be convergence of a different sort.

A second distinguishing feature of the model presented in Figure 7.1 is its emphasis on the ubiquity of transformational change attempts. Unlike previous research in this area, which generally describes the convergence as a passive and complacent time of elaboration, the findings presented here suggest that organizational members are virtually always resisting transformational change attempts. For example, recall that not all transformational change attempts made at CMBC were included in the eleven studied here (for example, attempts not written up in minutes or poorly articulated were not included in the present analysis). Even so, these eleven attempts spanned all but 15 years of CMBCs 42 year history; CMBC members were free from relatively well-articulated transformational change attempts only 36 percent of the time.

Note that this dual nature of convergence (i.e., elaboration and resistance) may be especially apparent in post-secondary institutions where, because organizational members are trained to think in terms of theoretical possibilities, well-articulated transformational change attempts are more likely to be made. Thus, future research should test whether well-articulated transformational change attempts are presented less frequently in less dynamic organizations.

However, if it is true that convergence is characterized by resistance as well as the more traditional emphasis on elaboration, then researchers should continue to distinguish between these two dimensions. Failure to recognize the resistance dimension of convergence has three constraining implications on organizational analysis. First, conceptualizing periods of convergence as relatively passive times of elaboration (versus active resistance) helps to perpetuate the myth of the primacy of formal rationality. For example, understanding a period of convergence as a time span during which a specific formal rationality is dominant within an organization tends to focus attention on how that formal rationality is elaborated. And although it is not inappropriate to study how formal rationality is elaborated, as stressed in chapter 2, it is often ignored that every FR means-ends configuration has PR and CR dimensions. Recognizing periods of convergence as times of resistance places greater emphasis on cultural and political rationalities. The central activity during periods of convergence is not only FR based elaboration (and resistance), it is also CR and PR based resistance (and elaboration). Embracing this larger understanding of convergence promises to aid researchers' attempts to understand processes in organizations.

Second, conceptualizing periods of convergence as relatively passive times of elaboration (versus active resistance) often creates a situation where organizational analysts focus on maximizing internal efficiency rather than ensuring external fit and effectiveness. This has resulted in a relatively advanced understanding of how to organize efficiently (looking at organizations basically as closed systems) and a relatively poor understanding of the fit between organizations and their external environments. Moreover, perhaps the least understood aspect of external fit is its associated internal dynamics.

Third, and most significant for the present study, as a consequence of conceptualizing periods of convergence as relatively passive times of elaboration, contemporary organizational theorists (and managers) are poorly-equipped to understand and manage transformational change processes. This is especially troublesome given the increasing need for transformational change in the empirical world. The approach taken in the present study, to focus on the active resistance characterizing periods of convergence, has proven to be very effective in understanding factors and processes associated with transformation.

In sum, recognizing that convergence implies actively resisting transformational change attempts (in addition to elaborating an existing means-ends configuration) promises to help improve our understanding of: i) PR and CR dimensions of behavior in organizations; ii) how an organization fits within its external environment; and iii) the dynamics of transformational change.

Dismissed transformational change attempts

Future researchers may wish to study the difference between poorly-articulated change attempts which are not given serious consideration versus relatively well-articulated and considered change attempts such as the eleven studied here. This promises to further improve understanding of behavior in organizations generally, and also understand the antecedent processes leading to transformational change.

Factors and processes associated with transformation

Crises. The model shown in Figure 7.1 suggests that crises act to increase the number of transformational change attempts being made (as expected), and also to increase organizational members' commitment to an existing means-ends configuration (not expected). The latter unexpected finding may be partly a function of the research site. For example, it could be that members of not for profit organizations react differently to crises than members of business organizations. Given Meyer and Rowan's (1977) argument, one might expect that especially members of post-secondary educational institutions may cling more tenaciously to institutionalized formal rationalities (i.e., formal rationalities which have been infused with values) during crises precisely because therein they find legitimacy. Members of business organizations, on the other hand, may respond to crises differently because their fate is based primarily on profitability (which can be achieved within a variety of legitimate organizational forms). Therefore, future research looking at the effect of crises on transformational change should be carried out at research sites where legitimacy is not a function of maintaining a specific institutionalized formal rationality.

Another unexpected finding was in the difference between responses from CMBC members versus non-members. Although external observers often responded differently than CMBC members, this was most striking in the questionnaire results used to analyze hypothesis 4c, where non-members' results lent support to the proposition that heightened crisis intensity was negatively related to commitment to existing rationalities and positively related to support of alternate rationalities.

This finding has theoretical implications, and several testable explanations for it can be posited. For example, the results lend support to the argument that respondents operating primarily in a not-for-profit sector (in this case, CMBC faculty and board members) will respond to crises differently than respondents more familiar with a business sector (in this case, non-members). Alternatively, perhaps the further removed one is from the day-to-day operations of an organization, the less one feels a need to protect an existing formal rationality (and its related political and cultural rationalities). This relationship may hold for a variety of issues facing respondents.

Future research must also consider the methodological implications associated with the differences between member and non-member responses. These differences underline the importance of gaining access to an organization in order to study processual dynamics of behavior in organizations. Researchers must remember that their response, as well as that of other well-informed external observers, to ostensibly identical stimuli may be diametrically opposed to the responses of organizational members.

Opportunity. Future research should explore the link between perceived versus actual opportunities. Considerable efforts were made in the present to study to develop an opportunity index which measured "actual" opportunities facing CMBC members. It was assumed that transformational change attempts invariably are based on perceived opportunities. Perhaps there is an underlying logic helping to explain which actual opportunities become perceived. For example, perhaps opportunities are more likely to perceived the more PR they are.

This may serve as a basis for creating a typology of opportunities. For example, researchers may find that some types of opportunities are more likely to be perceived than other types, and that certain types are more likely to trigger transformational change attempts than other types. To illustrate, it may be that performance bonanzas (as introduced in chapter 2) trigger transformational change attempts in much the same way as crises do (i.e., as described in hypothesis 4a). If an opportunity type which triggers change attempts is identified, then this has important implications for the management of transformation. Persons desiring to trigger change, rather than drawing attention to crises and thereby simultaneously increasing resistance to transformation, could identify and draw attention to this type of opportunity and thereby simultaneously decrease resistance to transformation.

This latter point draws attention to a third area awaiting further research. The relationship between crises and opportunities, and how the latter serve to counteract the resistance to transformation associated with former, merits further exploration and testing.

Lines of resistance. The suggestion that there are two lines of resistance requires further testing. Improved understanding of these two lines of resistance, and in general of the rationality processes underlying transformational change, could be gained if research were performed in real time. Rather than asking respondents to remember bases for actions which took place years ago, it would be preferable for researchers to gain rationality-based data as a transformational change process occurs. For example, real time research would permit researchers to monitor whether the different rationality types fluctuate in their relative importance during the course of transformational change attempts. Perhaps there are more than two lines of defense, or perhaps overcoming this lines is a recursive process; these are questions for future research.

Change type. Recall that hypothesis 1 (which suggests that transforming both ends and means is more difficult than transforming either ends or means) was based on Kimberly and Quinn's (1984) assertion that the most common transformations were those in which an organization was restructured. This assertion is supported by the data insofar as virtually all change attempts studied attempted to change CMBCs structure. However, a large majority (7 of 11) of these attempts were changes to more than structure alone (i.e., they were Type 2 change attempts which involved both ends and means).

Given that Type 2 changes are the most difficult to implement (hypothesis 1), it is somewhat counter-intuitive that there are more Type 2 change attempts than the other types. One might have expected a propensity to attempt easier types of change. Similarly, it is surprising that Type 2 changes were no less likely to be implemented (2 of 7; or 29%) than Type 1 changes (1 of 4; or 25%). Thus, despite the fact that Type 2 changes are the most difficult to implement, they seem just as likely to be implemented as other types and they are attempted more often than other types.

This latter observation provides indirect support to the view that an organization's domain, structure and systems are highly interdependent and interrelated. Perhaps Type 1 (means only) and Type 3 (ends only) changes are attempted less often than might be expected precisely because it may be unusual to be able to transformationally change only one part of an organization's means-ends configuration. As a result, organizational analysts should not assume that more difficult (and more comprehensive) transformational changes are attempted or implemented less frequently than less difficult changes.

Furthermore, the failure to observe Type 3 change attempts may be partly attributable to this holistic argument. More specifically, it is difficult to conceive of a change which affects ends but not also means. Field (1991, personal correspondence) suggests that perhaps Type 3 change attempts are latent Type 2 changes. He cites the example of travel agency which has acquired, but has not yet used, a wholesaler's license to supplement its retailer's license. If the wholesaler's license is utilized at some future date, it will likely require a change in the travel agency's structure and systems, resulting in a Type 2 transformation.

The typology developed here is not well-equipped to resolve such issues (does a latent transformational change become a dismissed transformational change attempt at some point?). Similarly, the present typology is not particularly well-suited to discriminate the increased "scope" ascribed to change attempt #11 in Table 7.1 versus other less-encompassing and therefore easier-to-implement change attempts.

In sum, although the typology used here has merit, as demonstrated in the analysis of hypothesis #1, other typologies will be more well-suited to questions raised by the present research.

Low political rationality basis. As discussed in chapter 6 under hypothesis 3, the data suggest that transformational change attempts are more likely to be implemented when the proposed changes are perceived to be weakly in the self-interests of change initiators, and moderately in the self-interests non-initiators. These findings have several implications for future research. First, future research must more explicitly differentiate between actual and perceived self-interests. Second, future research must further test whether it is more important to minimize PR reasons resisting transformation than to maximize FnR PR reasons supporting transformation.

Third, the finding that change initiators' PR support for a given change attempt must be perceived to be low in order to ensure transformation helps to clarify and elaborate the theory behind the original hypothesis. There may be two reasons for non-initiators to resist a transformational change attempt. First, as suggested in proposing hypothesis 3, non-initiators may resist transformational change because it is PnR for them. Second, non-initiators may resist a transformational change if they perceive to be PR for initiators even if it is not PnR for non-initiators. This second reason for resistance may be based on jealousy (non-initiators do not wish initiators to gain relative advantage) and/or on a belief that all change takes place in the context of a zero-sum game (non-initiators believe that if another group is benefitting, then someone else is losing something). The merit of these various explanations awaits future research.

Finally, the findings should be tested in a research setting where self-interested behavior is perceived to be more acceptable. Self-interested behavior was frowned upon at CMBC (e.g., selfishness is a sin), sometimes apparently without regard to whether the behavior was culturally or formally rational. It may be that in some organizations self-interested behavior is considered acceptable, and therefore transformational changes which are in the self-interests of initiators would not be resisted by non-initiators if the latter did not perceive the transformation to be against their own self-interests. However, resistance based on jealousy and/or on an assumption of zero-sum games would lead to the same findings as in the present study.

In sum, the role of PR behavior in transformational change provides fertile ground for future research on transformational change.

Capacity. Research in real time would also help to provide a better understanding of the role of capacity. Specifically, research could examine to what degree it is necessary to demonstrate that capacity is available before a change can begin to be implemented (in order to overcome the first line of resistance), and how capacity is developed as the change is being implemented.

Primary cultural rationality basis. In order to further test hypothesis 2, which showed that implementation was more likely if it was founded primarily on value-based reasons, a research site should be chosen in which the desire for behavior to be CR-based is not explicitly emphasized. For example, it may be that in a business organization where cultural rationality is left unarticulated, CR-based resistance to transformation will be minimized and therefore transformations need not be based primarily on CR reasons. However, Weber's assertion that changes of the greatest historical consequence are based on cultural rationality is hypothesized to hold across all types of organizations; only cultural rationality has the analytical potential to displace formal and political rationality. It may be more difficult to study this phenomenon in organizations whose cultures are not as transparent, but the finding would be expected to be the same.

Also, the interview and archival data suggested the importance not only of providing a primarily CR based rationale in order to ensure transformation, but also suggested that this CR basis must be perceived to be consistent with values associated with an organization's past. In the present case, these were founding values. Whether it is only founding values which may provide the legitimacy on which to base a transformational change awaits future research. For example, perhaps for organizations with a longer history, values associated with a particular "golden era" may serve the same function.

Finally, the present study has only begun to demonstrate some of possibilities associated with the multiple rationalities framework. For example, rather that use the framework simply to differentiate between rationality types and respondent groups, as done here, the framework can be used to compare responses within groups, and indeed to create groups which might span pre-existing groups. Thus, respondents could be grouped according to whether their net CR scores provided primary support for a change attempt, according to whether capacity scores were high (or low, or medium), whether a change was very PR or very PnR for them, and so on. Future studies may incorporate different research designs which enable researchers to fine-tune our understanding of transformation and other issues utilizing this rationalities framework.

Conclusion

In sum, the concepts and findings presented in this study have exciting implications for organizational theory. First, understanding transformational change attempts as ubiquitous not only provides a context within which researchers can better understand the processes of transformation, but it also underlines the effort required to maintain convergence.

Second, the multiple rationalities framework provides richer language and concepts with which to study rational and nonrational behavior in organizations. For example, researchers are now better equipped to conceptually and empirically study rationality according to type as well as by interest group, value group, and organizational group.

Finally, the development, testing, and refining of a multiple rationalities model of transformational change makes an important contribution to both practitioners and organizational analysts. The findings support the hypotheses that: i) changes of greater scope face greater resistance; ii) changes of the greatest historical consequence are based primarily on culturally rational reasons; iii) transformation is facilitated by minimizing stakeholders' politically rational opposition; iv) crises trigger an increase in number of transformational change attempts, but crises also increase organizational members' commitment to an existing means-ends configuration and decrease openness to new means-ends configurations; v) opportunities decrease organizational members' commitment to an existing means-ends configuration and increase commitment to new means-ends configurations; and vi) capacity facilitates transformation.

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Table A1
CMBC-related interview possibilities available

year	President (y/n)	Board mbrs (no.)	Faculty mbrs (no.)	Interviews completed (no.)	number people intrvwed
1947	y**	1**	1	5	2
1948	y	1	1	8	4
1949	y	1	2	8	4
1950	n	1	3	4	2
1951	n	1	1	4	2
1952	n	2	1	4	2
1953	n	2	1	4	2
1954	n	2	4*	5	4
1955	n	3	4	5	4
1956	n	4	4	5	4
1957	n	5	5	6	5
1958	n	5	5	8	4
1959	y	6	5	8	4
:	:	:	:		
:	:	:	:		
1989	y	15	15 ft	>10	>10

*The person who became CMBC President in 1959 joined the CMBC Faculty in 1954.

** The researcher travelled to Ontario (where original board member lives), USA (where original and later Presidents live), and to the western provinces to conduct interviews.

Table A2
Interviews completed

date	length (hrs)	interviewee	comments (see key below)
1988			
Feb 18	0.5	L. Klippenstein	1, 4
Feb 22	1	Ken Reddig	6
Feb 22	3	G.K. Epp	1 (Pres 1978-83)
Feb 22	1.5	Herb Kopp	6
Mar 1	1	Abe Konrad	6
May 2	1.5	John H. Neufeld	1 (Pres 83-?), 2 (Chm), 3
May 2	2	Jake Peters	1, 6
May 2	1	John Friesen	1
Jly 14	0.5	Larry Kehler	3, 4, CMC CEO
Dec 28	0.25	G.K. Epp	1 (Pres 1978-83)
1989			
Jan 4	1	Ron Loeppky	1
Aug 1	4	David Janzen	1
Aug 2	2	Gary Harder	2, 3, Chmn
Aug 3	1.5	Henry Poettcker	1 (Pres 1958-77)
Aug 10+11*	6.5	Arnold Regier	1 (Pres 1947-49)
Sept 28	1	Ed Pries	2, 3
Sept 29+30		CMBC Bd meetings	
Nov 9	1.5	David Schroeder	1
Nov 16	1.5	David Schroeder	1
Nov 17-19		CMC board meetings	
Nov 18	0.75	Tony Nickel	2 (Chmn)
Nov 23	1	David Schroeder	1
Nov 29	2	John H. Neufeld	1 (Pres 83-?), 2 (Chm), 3
Dec 14	2	Rudy Regehr	1, 3, 4
Dec 15	3	Waldemar Janzen	1
Dec 18	1.5	Rudy Regehr	1, 3, 4
Dec 20	2	John H. Neufeld	1 (Pres 83-?), 2 (Chm), 3
Dec 21	1	C. Ens	son of founding 2
1990			
Feb 2		CMBC 25 yr ATC with UM celebration	
Feb 7-10		CMBC bd mtgs/CMC Council of Bds	
Feb 10	1	Ron Loeppky	1
Feb 12	2	Ed Pries	2, 3
Feb 13	1	Ron Rempel	3, 4
Feb 13	2.5	Rod Sawatzky	1, 6
Feb 13	2	George Wiebe	1 (1950-?)
Feb 13	2	Pauline Baumann	1 (1948-51)
Feb 14	2	David Janzen	1
Feb 14	3	Nikolai Fransen	2 (1947-57)
Feb 14	2	Jake Fransen	3, 5
Feb 24	1.5	Henry Poettcker	1 (Pres 1958-77)

Interviews completed, continued

date	length (hrs)	interviewee	comments (see key below)
1990			
Mar 21	2	Ron Loeppky	1 (1980-?)
April 5	1.5	Larry Kehler	3, 4
April 5	3	Faculty meeting	
April 6	2	Henry Gerbrandt	2 (Chm), 5
April 8	3	Paul Peters	2 (Chm), 3
April 9	1.5	Ed Ens	3
April 10	1.5	Helmut Harder	1 (1962-?)
April 10	1	Harry Huebner	3, 1 (1972-?)
April 11	2	Gerald Gerbrandt	1, 3
April 16	2	John Bergen	2
April 20	1	Edgar Rempel (ph)	4
April 24	0.5	Ron Loeppky	1, 1980-
April 24	0.5	L. Klippenstein	1, 4
June 11	0.5	Ron Loeppky	1,1980-
June 28	0.75	Edgar Rempel	4
June 28	0.75	Rudy Regehr	1,3,4
July 22	4	Arnold Regier	1,pres47-50

*3 sessions

Code for comments:
1 = faculty member
2 = board member
3 = student
4 = CMC employee
5 = CMC leader
6 = observer

Summary
54 interviews completed
88 hours of interviewing
5 meetings attended

Note: As a result of spending time on CMBC campus and through other church-related and personal involvements, the researcher had numerous informal research-gathering interview sessions in addition to those listed.

Table A3
Mail-out questionnaire data

	faculty	board	other	total
number of questionnaires:				
- distributed	55	60	50	165
- viable*	55	49	43	147
- returned	50	42	31	123
- utilized	43	38	26	107
number of recipients	16	24	31	71

*Note: number of questionnaires viable was calculated by subtracting from the number of questionnaires distributed those which were returned to the researcher due to incorrect addresses or with a comment that recipient was unable to respond

APPENDIX B: QUESTIONNAIRE INSTRUMENT AND COVER LETTER

University of Alberta
Edmonton
Canada T6G 2R6

Department of Organizational Analysis
Faculty of Business
4-21A Faculty of Business Building, Telephone (403) 492-3949

Bruno Dyck
711-1750 Pembina Hwy
Winnipeg, Manitoba
R3T 4J5

May 1, 1990

Dear Friend of CMBC:

As a doctoral student at the University of Alberta I am studying particular types of changes made by all organizations. I am using CMBC as a research site to find specific examples of the types of change I am studying. Thus far, I have been able to identify several such examples through looking at archival materials and conducting numerous interviews. One type of change might be described as "significant change", such as when CMBCs aim changed from preparing full time churchworkers in the 1950s to providing non-professional theological education in the 1960s. Another type of change might be described as "non-change", such as when a decision was made in 1957 not to introduce highschool instruction at CMBC.

In order for me to complete my research, I need information from people like yourself who were personally involved in the discussions surrounding these specific changes and non-changes. Please help me by completing the enclosed questionnaires. Your response is important to me and will be kept confidential.

If it is possible for you to return your completed questionnaires to me by May 25, 1990, I would very much appreciate it. If it is not possible for you to meet this deadline, then please return your completed questionnaires at the earliest convenient date. I have enclosed a self-addressed stamped envelope for this. Your prompt reply will allow me to begin my analysis of the questionnaires as soon as possible.

If anything is not clear or should you have any other questions, please do not hesitate to call me 'collect' at (204) 269-6189. Thank you very much for your time and thought.

Sincerely,

Bruno Dyck

Questionnaire A1F

These questions are designed to understand why in 1956-58 decisions were made not to introduce some high school instruction (grades 11 and 12) at CMBC.

The mid-1950s were years of development and consolidation for CMBC: by then a large part of the CMC constituency was supporting CMBC both by sending students and by funding the new campus on Shaftesbury (purchased in 1952 and moved into in 1956). In 1956-57 a proposition to introduce grade 12 instruction at CMBC was discussed at length and eventually rejected. After a similar discussion 1958, the school which was to become Westgate Mennonite Collegiate was founded.

A. Background Information (please 'check' appropriate response)

1. In your impression, during 1954-57:

	very good	good	mediocre	poor	very poor
CMBCs financial situation was	__	__	__	__	__
CMBCs relationship with the CMC constituency was	__	__	__	__	__
CMBCs relationship with the University of Manitoba was	__	__	__	__	__
CMBCs relationship with other CMC-related high schools was	__	__	__	__	__

Comments____
____
____

2. In 1957, did you feel that a workable organizational structure to offer some high school instruction at CMBC:
   - __ already was available
   - __ would be easy to design
   - __ would be difficult to design
   - __ probably could not be designed
   - __ definitely could not be designed

   - __ don't know/other

Comments____
____
____

B. People Involved in the Discussion

For the groups of people listed below, please give your general impression of whether they:

i) initiated,
ii) supported, and/or
iii) opposed the proposition to offer some high school instruction at CMBC.

Note: some groups may have no involvement, others may be involved at several levels.

	initiated	supported	opposed	other/ don't know
CMBC Board members	___	___	___	___
CMBC faculty members	___	___	___	___
CMC leaders	___	___	___	___
CMC constituency	___	___	___	___
other CMC-related hischools	___	___	___	___
CMM leaders	___	___	___	___
CMM constituency	___	___	___	___
others: ________________	___	___	___	___
________________	___	___	___	___

Comments____
____
____

C. Implications for CMBC

In your opinion, if it had been decided to offer some high school instruction at CMBC, how much change would CMBC have needed to undergo in the following areas?

area	little or none	some/ minor	significant or major	don't know
goals/purpose	___	___	___	___
course offerings	___	___	___	___
program of studies	___	___	___	___
student recruitment activities	___	___	___	___
relative influence of:				
CMBC Board members	___	___	___	___
CMBC faculty members	___	___	___	___
CMBC administrators	___	___	___	___
types of faculty positions	___	___	___	___
no. of written rules/procedures	___	___	___	___
organizational structure	___	___	___	___
decision making process in:				
daily operations	___	___	___	___
policy matters	___	___	___	___
relationship to:				
University of Manitoba	___	___	___	___
other CMC-related hischools	___	___	___	___
CMC constituency	___	___	___	___

D. Reasons For/Against

Note that this section is divided onto two pages. On this page you will be asked to identify important reasons favoring change, on the following page you will be asked to identify important reasons opposing change. You may wish to read both pages before you begin.

Please use the following abbreviations to answer the questions below:
i) check "VI" for those reasons which were Very Important,
ii) check "I" for reasons which were Important,
iii) check "SI" for reasons which were Somewhat Important,
iv) check "OTHER" for reasons which, for example, were not important or not considered.

1. Rate the importance of the following possible reasons you as a faculty member may have had which favored offering some high school instruction at CMBC:

	VI	I	SI	OTHER
a workable organizational model was available	___	___	___	___
offering high school instruction (and the added resources this could bring) could help to strengthen CMBCs regular program activities	___	___	___	___
it could increase student enrolment at CMBC	___	___	___	___
offering high school instruction could give faculty members the opportunity to more often teach in their favorite subject areas	___	___	___	___
offering high school instruction at CMBC would be good stewardship of the campus	___	___	___	___
it could increase financial support for CMBC	___	___	___	___
adding resources (eg instructors, library facilities) could benefit faculty members' personal development as teachers/scholars	___	___	___	___
CMBC Board members favored the idea	___	___	___	___
CMBC possessed the know-how offer some high school instruction	___	___	___	___
it could provide Mennonite education for students who might otherwise not have access to it (mission of CMC)	___	___	___	___
the CMC constituency favored the idea	___	___	___	___
it could help CMBC to operate more efficiently	___	___	___	___
other ____ ____ ____	___	___	___	___

Comments ____
____
____

2. Rate the importance of the following possible reasons you as a faculty member may have had which opposed offering some high school instruction at CMBC:

	VI	I	SI	OTHER
CMC constituency opposed the idea	__	__	__	__
CMBC Board members opposed the idea	__	__	__	__
it could erode a founding value of CMBC, namely to provide "higher" Biblical education for CMC	__	__	__	__
proposal could make working at CMBC more stressful (eg "headaches" due to discipline problems)	__	__	__	__
CMBC lacked the know-how to go through with it	__	__	__	__
it could lower the academic integrity of CMBCs regular program	__	__	__	__
prestige of CMBC faculty members could decrease	__	__	__	__
it could decrease student enrolment at CMBC (eg high school graduates might not want to return to the same campus)	__	__	__	__
it could erode a fundamental value of CMBC, namely, developing the national identity of CMC (eg because it could create the perception that CMBC is regional and/or be unfair to other CMC-related high schools)	__	__	__	__
no workable organizational model was available (eg the situation with MBBC/MBCI was not ideal)	__	__	__	__
it could decrease financial support for CMBC	__	__	__	__
increased organizational complexity could decrease efficiency	__	__	__	__
other______________________________	__	__	__	__

Comments____

3. Generally speaking, do you feel that your reasons for and against were:

a) fairly consistent with those of most other faculty members
__ yes
__ no

b) fairly consistent with those of most CMBC Board members
__ yes
__ no

Comments____